Marine Corps Gazette

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FORTY CENTS

Marine Corps Gazette

MARCH 1959
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THIS MONTH'S COVER . . . . . The Hiller XROE-1 is scheduled for testing, by the Marine Corps Landing Force Development Center, this year. The pilot is wearing the new International Orange flight suit now being issued to Marine aviators.

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NEW VOUGHT CRUSADER FOR FLEET NEXT YEAR!

Navy orders fourth version of flexible, economical fighter

For the fourth time in three years, a new *Crusader* type is extending the power of the Fleet. Chance Vought's F8U-2N has been ordered by the Navy for delivery next year. It will deploy alongside the Navy's swiftest photoplanes and two first line day fighters – all *Crusaders*.

The F8U-2N is another step in *Crusader* growth. Speed of this newest version has been advanced to near Mach 2. It will carry the deadliest air-to-air missiles. It is instrumented and radar-equipped for supersonic combat in darkness or bad weather.

This will be a new capability for the Fleet. Yet it is being acquired at low risk and cost. The F8U-2N's basic design has been proved simple, serviceable and economical . . . compiling an enviable performance record in a year of foreign duty with two Fleets.

Again, the growth provisions of the Vought *Crusader* have provided immediate, low-cost upgrading of the Fleet's aircraft inventory.

CHANCE VOUGHT AIRCRAFT
INCORPORATED · DALLAS, TEXAS

Screen Test for Marines

. . . WCmdr Gellner's prize-winning essay (GAZETTE: Jan '59) on the professional army versus the citizen army is certain to strike responsive chords and give voice to a crescendo of hallelujahs and amens. This will probably be accompanied, most appropriately, by agitation to get on with it.

If such is to come to pass, the onus, not impetus, must rest upon the services. There are at least 2 principal areas in which the services must take firm and drastic measures. As with the chicken and the egg, it is difficult to say which should be first considered. The 2 areas are: relations with the public, and conditions within the services.

If the American public is to change its ideas of the character of service personnel and the importance of the professional career, the services, individually and collectively, must take the initiative. To the maximum extent possible, the services should discourage presentation to the public by any planned media (TV, motion pictures, books, stories, cartoons, etc.) of situations which incorrectly but deliberately ridicule or misrepresent military life or the officers and non-commissioned officers who must provide the control and guidance of those in the military. This does not mean nor can it ever be permitted to be inferred that the services must have a right of censorship. Rather this must be accomplished by the producers, directors, publishers, writers, etc. themselves as a matter of cooperation, promoted by proper understanding. At the same time the services must encourage the honest presentation of those same topics and provide such services, facilities and other assistance as may be required.

Within the family, there is much room for improvement. There is need for reaffirmation of the responsibilities and authority inherent in each rank and an insistence upon acceptance and discharge of such. There must be genuine concern over the welfare of service personnel and major efforts made to provide those items which cause a man to be

proud of his service and glad he is a member. If a man has something to be proud of he will evidence this pride. The converse is also true.

If the nation and its proper representatives can place trust and confidence in service personnel then so should each service. Steps must be taken to correct situations wherein it is easier and less embarrassing to establish credit than it is to purchase at a post exchange or commissary. The services must protect the limited benefits accruing to its members, who voluntarily restrict their freedoms by serving, from the activities of outside pressure groups. At the same time, the services must insist that the trust given is not betrayed, but when there is betrayal that such is dealt with quickly, firmly, fairly and adequately.

When one's own house is in order, then by the very nature of humanity, it will be accorded its proper place in the neighborhod of society. The impetus for such placement will come from without.

LtCol W. F. Frank
MCEC
MCS, Quantico, Va.

Academy Code

. . . In the January issue, WCmdr Gellner's prize essay "An Ethos for the Professional Soldier of Today" is certainly thought provoking, but I must take exception to his remarks, "the academy code is watered down almost as soon as the cadet is commissioned, to be practically effaced later in the milieu of married officers' quarters." Some individual graduates may tend to completely change their outlook on the service career they have chosen after experiencing a few years in an officer's billet. These graduates are usually those who eventually resign their commissions and seek other walks of life. However, for the vast majority (and this is obviously part of the mission of the service academies) the 4-year academy course of indoctrination is predicated to establish a firm foundation upon which the graduate can build a dedicated and ambitious career. Certainly graduation is a definite transition period but the ideals and fundamentals of discipline, devotion to duty, self-denial when required, are firmly planted. Adjustment to practical situations of officer billets is required and this I cannot conceive as a "watering down" of the academy code. If this is the case, observe and diagnose the individual graduate and not the academy's mission.

I bring to your attention the stated mission of the United States Naval Academy for one example to amplify my thoughts:

"Through study and practical instruction to provide the midshipmen with a basic education and knowledge of the naval profession; to develop them morally, mentally, and physically; and by precept and

(Continued on page 4)

★

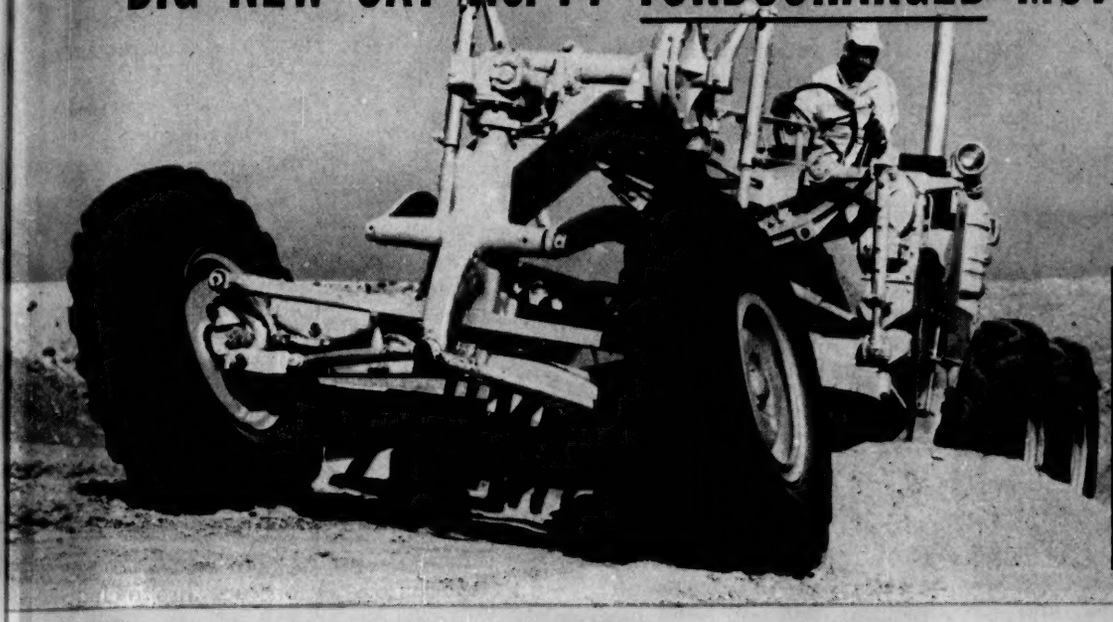
The GAZETTE will pay $5.00 for each letter published in Message Center

★

CATERPILLAR'S PROJECT PAYDIRT

***PROJECT PAYDIRT** pays off for you again*

BIG NEW CAT No. 14 TURBOCHARGED MOTOR GRADER



PROJECT PAYDIRT: Caterpillar's multi-million-dollar research program—to meet the continuing challenge of the greatest construction era in history with the highest production earthmoving machines ever developed.

ENGINE HP (rated at sea level)—150. **BLADE,** standard—12 ft.; optional—14 ft. **TIRES,** all around—14.00-24.
WEIGHT—29,280 lb. **TRAVEL SPEEDS,** 6 forward and 2 reverse—2.6 to 21.6 MPH. **TURNING RADIUS**—36 ft.

IN THE new No. 14 Series B, Caterpillar brings you the most versatile grader in the "big machine" field. Another major achievement in "Project Paydirt," it answers the need for a giant unit that comes through dependably with higher, faster, lower-cost production both on the toughest and finest grading jobs.

The first and only Turbocharged motor grader, the 150 HP No. 14 operates at highest practical working speeds with either a 12-ft. or 14-ft. moldboard. It incorporates the latest engineering advances developed by Caterpillar research with exclusive time-tested Caterpillar features. Some are shown here, but there are many more. They all pay off on this one fact: you can use the No. 14 anywhere on—

—power applications like heavy spreading, ditching, grading and bank sloping.

—control applications like light spreading, fine grading, blading and maintenance.

As a result, you don't have to pick "spots" to make the No. 14 pay off. This big all-purpose grader will earn its keep on every job with low operating cost and high capacity!

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

ADVANCE FEATURES OF THE NO. 14

EXCLUSIVE OIL CLUTCH: Provides up to 2,000 hours' service without adjustment, equal to about 12 months' "adjustment-free" operation.

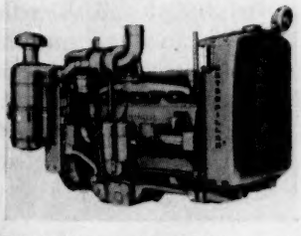
POWER STEERING AND POWER BRAKES: Provide fast, positive response and ease of operation that help operator maintain high production anywhere . . . under all types of work conditions.

NEW DRY-TYPE AIR CLEANER: Removes 99.8% of all dirt from intake air during every service hour. Can be serviced in 5 minutes.

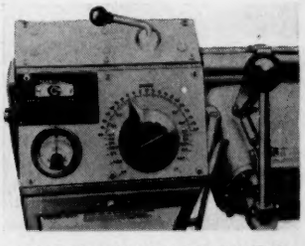
TUBELESS TIRES—14.00-24 (10-PLY RATING): All tires are mounted on wide 10-in. rims to stiffen tire side-walls and reduce tire "roll." Large tires on front end improve machine stability.

EXTRA STRENGTH FRAME: Heavy frame, drawbar and circle are ruggedly built to match engine power.

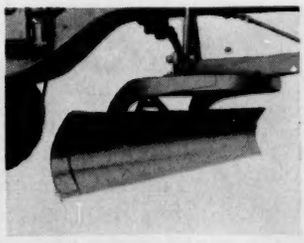
UNEQUALED VISIBILITY: An operator, while seated, has an unobstructed view of critical areas at the front wheels, blade toe and circle.



TURBOCHARGED CAT ENGINE: First and only Turbocharged engine in a grader. Engine provides high 18% torque rise.



PRECO AUTOMATIC BLADE CONTROL: Another Caterpillar exclusive, optional on the No. 14. Maintains blade slope within ⅛ in. in 10 ft.



HIGH THROAT CLEARANCE: New design permits increased clearance between moldboard and circle for greater loads.

CATERPILLAR

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DIESEL ENGINES • TRACTORS
MOTOR GRADERS
EARTHMOVING EQUIPMENT

BORN OF RESEARCH . . . PROVED IN THE FIELD

(Continued from page 2)

example to indoctrinate them with the highest ideals of duty, honor, and loyalty; in order that the naval service may be provided with graduates who are capable junior officers in whom have been developed the capacity and foundation for future development in mind and character leading toward a readiness to assume the highest responsibilities of citizenship and Government."

Capt F. D. Leder
Executive Department
USNA, Annapolis, Md.

Apathy Uprooted

. . . The January issue of the GAZETTE is one of the best to be published to date. The essay by WCmdr John Gellner will bring a loud chorus of approval from all professional-minded Marines. In my estimation it is one of the best articles of its kind to be printed, and certainly is worthy of first place in the essay contest.

The situation he depicts does exist, and has existed since the days of Gen George Washington. The concept of the "citizen army" is accepted by a large portion of the public as a panacea for our defense needs. American history is replete with examples of rapid mobilization and just as rapid a return to apathy towards maintaining an adequate armed force once the conflict ends.

This typically American aversion to all things military, except when the security of the nation is threatened, has always been a basis for our military policy. In recent years, primarily due to the "Cold War," an attempt has been made to keep the public appraised of the need for a "hard core" of professionals. This has resulted in certain legislation beneficial to the services, but the deep-rooted attitudes of the American people toward the military will not change overnight, probably not in several decades.

WCmdr Gellner's thought-provoking essay has provided several hours of discussion for Marines at this command, and I am sure it has at other posts and stations.

Maj D. B. Cashion
MB, NRTC
NB, Norfolk, Va.

Catastrophe or Calamity

. . . As usual, I read the latest GAZETTE with avid interest, enjoying it thoroughly. WCmdr Gellner's essay (GAZETTE: Jan '59), however, rather struck me as an apology for the fact that a nation requires professional soldiers, and that those so privileged to serve require a devotion "above and beyond the call of duty." Further, I feel that he may have erred in a rather catastrophic way regarding the demands of the future. I wonder if he hasn't lost sight of a few points in history and some of the major threats of modern technology in war.

He decries, for instance, the need for the citizen soldier, stating that once again wars will be fought and won exclusively by elite corps of professional fighting men, such as occurred in medieval times. It appears doubtful that such was actually the case in history and even more doubtful that such will be the case in the

future. Our written history is steeped with impressions that wars were fought by small armies of knights and professional men-at-arms, with only infrequent reference to the "levies drawn from the kingdoms." This is primarily so because the chroniclers of that time were virtually limited to the royalty and clerics who either were knights or accompanied them in battle. Their not unselfish interest was in "blowing their own horns."

As for the requirement for citizen soldiers in the future, one can hardly deny that the bases of the regular military establishment are prime targets in time of war.

To deny this is comparable with saying that the best way to kill a rattlesnake is to chop pieces out of his mid-section, while leaving the head intact to bite. Effective, surely, but awfully dangerous!

If the bases of the regular military establishment are prime targets, then casualties can be expected. Considering the tremendous power of modern weapons, these can be expected to be high.

Under conditions of modern war, to maintain a regular establishment of sufficient size to be a potent fighting force without augmentation after a successful attack by enemy forces is obviously beyond the economic capabilities of any nation.

The logical alternative is a plan to mobilize in depth—a plan whereby every able-bodied citizen from 16 to 60 (officially termed militia) could go into action on very short notice, defending key installations near their homes in addition to retaliatory and offensive action.

The employment of professional fighting forces, then, primarily, still includes undertaking offensive or retaliatory action, but also includes the establishment of "nerve center" staff groups to plan, organize, train and control the roughly 60 million citizens who come within the category of militia.

As for developing a special "ethos," this results from a blend of love of country and pride in one's self and family and is instilled through training in the home, in schools, churches, from belief in our political institutions, and participation in all the elements that contribute to proud citizenship in a proud country.

Carl H. Strandberg
10303 Haywood Dr.
Silver Spring, Md.

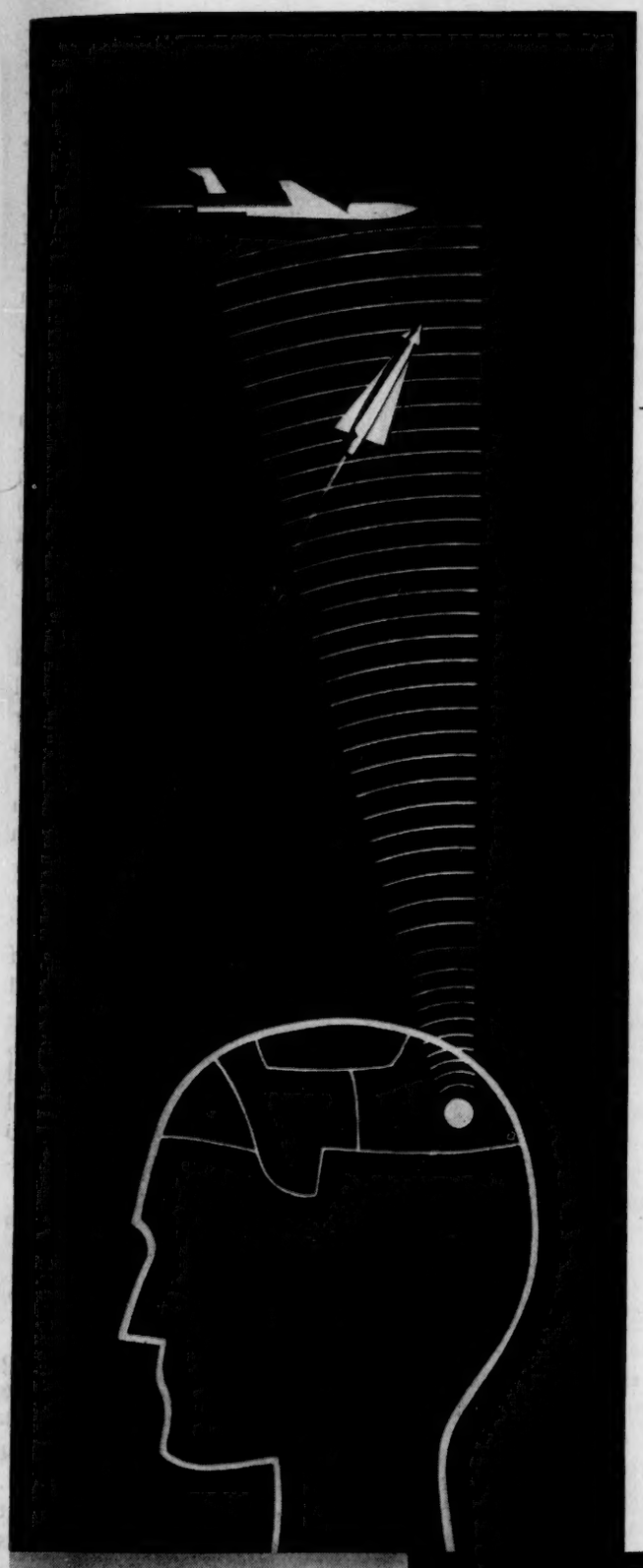
Digging Up a Solution

. . . I wish to present a solution to 1stSgt Kouma's letter entitled "Magazine Troubles" (GAZETTE: Jan '59).

I was a BARman with the 1st MarDiv in Korea during 1950-51. Faced with the same problem 1stSgt Kouma mentions, while on patrols I substituted for the BAR belt, a pistol belt with an attachment of 2 or 3 entrenching tool pouches. Each pouch carried 3 magazines. The assistant BARman carried one pouch with magazines and sometimes other members of the squad carried one on a long patrol.

Paul G. Martin
8869 20th Ave.
Brooklyn, N. Y.

(Continued on page 6)



From Bell Telephone Laboratories...

Brainpower

for the brawny

Nike-Hercules

The Army's newest surface-to-air guided missile—the lethal Nike-Hercules—is now operational. Because it is, no unfriendly plane will be able to fly sufficiently high, fast or evasively to escape a fatal rendezvous with it.

For Hercules has a "brain"—an intellect that makes it a prodigy among today's electronic robots. Bell Telephone Laboratories developed it. Western Electric (prime contractor for the entire missile system) is producing it. Douglas Aircraft Company is giving it its body.

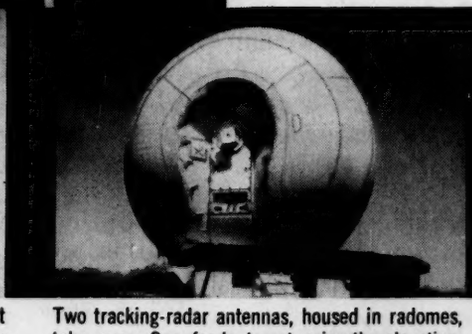
This "brain" is a fully integrated guidance system, almost entirely land-based. Only the vital signal-receiving apparatus is expendable within the missile itself. Other highly practical features: it defies "jamming," is completely mobile, is designed in separate "building block" units which are replaceable in seconds—and is deadly accurate.

Bell Labs scientists and engineers designed the world's largest and most intricate telephone communications network for the Bell System. They developed about half of the Armed Forces' radar equipment during World War II. And they pioneered the nation's *first* successful air defense guided missile system—Nike-Ajax.

They were eminently qualified to give Hercules the brainpower it needed.

BELL TELEPHONE SYSTEM

Vigilant acquisition radar for Nike-Hercules first detects approach of distant aircraft, pinpoints its location and instantly signals to battery control.



Two tracking-radar antennas, housed in radomes, take over. One feeds target azimuth, elevation, range data to computers; other tracks Hercules.

Two sets of radar data are electronically computed and plotted. Hercules is "steered" by radio signals, then detonated at precise point of interception.

(Continued from page 4)

A Suicide Pact

. . . Capt B. H. Liddell Hart's "Basic Problems of European Defense" (GAZETTE: Sept '58) and Capt W. V. Kennedy's exception in Message Center to Hart's "dreary picture" (GAZETTE: Jan '59) typify the poles of much current military thinking, *i.e.,* technology versus spirit. While the guided and ballistic missiles may not be "here now" weapons, they are essentially simple and getting more simple, whereas the mechanisms defending against them become more and more complex — and, therefore, less effective. We must realistically accept that mutual industrial suicide is indeed possible, and be prepared to win what remains with modern, determined ground forces.

Although my entire professional experience, both military and civilian, has been in electronic weapons systems, I firmly believe the Marine Corps should concentrate its efforts in continuing to provide that elite, spirited ground force that is the requisite counterpart of an offensive nuclear capability. Let the opposition waste its dollars and manpower on ineffective intercept and defensive equipment. Let the Marine Corps maintain a balanced attack force with minimum dependence on technology. Accept what missile attacks may accomplish, and accept the futility of an active defense against these weapons, and accept also the relatively undiminished capabilities of proper forces in securing either the non-atomic or aftermath warfare objectives.

Capt R. C. Shreckengost, USMCR
50 Garden Ave.
Winter Garden, Fla.

One More Round

. . . Many recent articles and letters to the editor have been written propounding the inadequacy and antiquity of the .45 caliber pistol. These articles and letters have advocated dropping the .45 in favor of a revolver, preferably the .38 revolver. One article recommended changing the marksmanship training in favor of a combat type course. This course would include using both hands and the utilization of arm rests. This was recommended to improve the marksmanship of the shooter.

The .45 pistol is not inaccurate! This has been proven by scores of 398, 399 and 400 x 400 fired by pistol experts. Only the shooter is inaccurate! He flinches or bucks; he does not practice proper trigger squeeze or sight alignment. Changing the weapon will not improve the marksmanship ability of these men. They need proper instruction, guidance and an example.

The .45 pistol is capable of firing 8 rounds without reloading. Unloading is accomplished quickly by depressing a single "button." Reloading with a magazine is equally as fast.

Can a revolver be unloaded and reloaded while moving on the double? Can a revolver be unloaded and reloaded expediently while wearing gloves or mittens? Is 5 rounds enough since the hammer on an empty chamber is considered a "safety"?

The .45 pistol was designed to kill people. Of this it is quite capable. It can be loaded, unloaded and reloaded quickly and effectively while in darkness or extreme cold. Its many safety features and devices prove their value in every unit performing guard duty the world over.

The accuracy and effectiveness of every weapon the Corps has is only as good as the Marine who uses it. Surveying the weapon is not the answer to poor marksmanship and ineffective training. To compromise on this would be against all principles of progressive instruction and military training.

1stLt R. R. Glaser
Marine Barracks
NAD, Hawthorne, Nev.

Flamethrower Section

The Provisional Table of Organization 1037, H&S Company, Infantry Battalion, Infantry Regiment, Marine Division, FMF has left our flamethrower capabilities limited. It is very probable that an unusually high share of working party details and H&S company CP security will be placed on the ATA platoon. A situation where the senior man is a Staff Sergeant, while the other platoons are commanded by Lieutenants with AGySgts for Platoon Sergeants will not aid this section. The flamethrower, being a weapon almost entirely employed in attack of fortified positions, will be given a personnel problem that will normally leave the unit under strength, or else the last unit to be brought up to strength.

The experiences of WW II when flamethrower teams were detached from the Engineer Battalion just prior to an operation were frequently causes for our high casualty rate for flamethrower operators.

The 3.5" rocket launcher and flamethrower teams are a deadly combination against fortified positions, but even more effective if seasoned teamwork and confidence in the team exist. A possible solution is a squad of flamethrowers within the weapons platoon of the rifle company, leaving the air compressor and maintenance with the battalion armorer.

1stSgt Anthony B. Kouma
2d Bn, 5th Marines
1st Mar Div
Camp Pendleton, Calif.

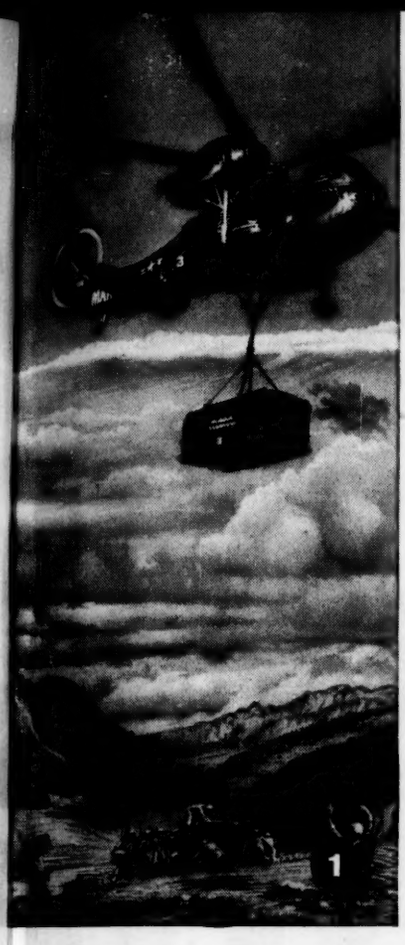
Late But Timely

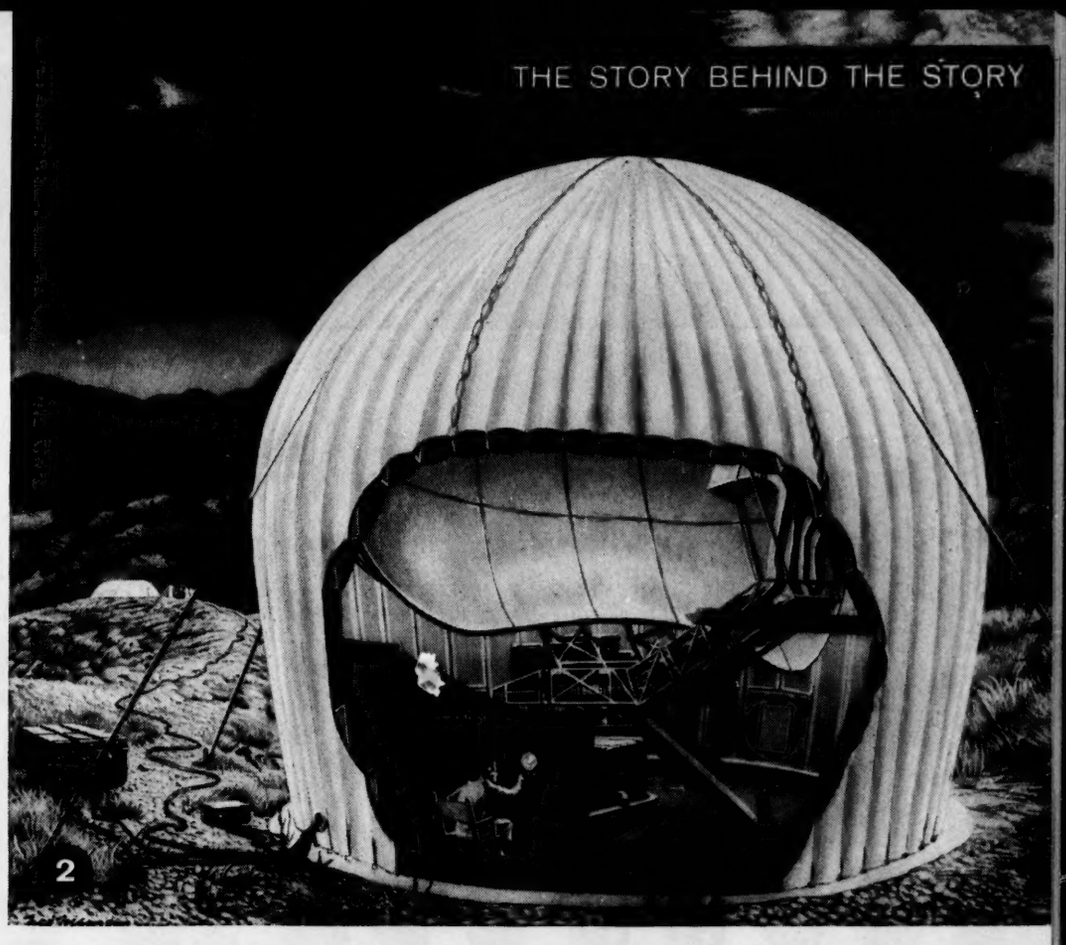
. . . On behalf of the directors and members of the State Association of Kansas Watersheds, I want to thank you for your article on Wildlife Conservation (GAZETTE: Dec '57).

It is most gratifying to know that all thinking people are beginning to realize that the only way we will have places of recreation and wildlife protection is through the saving of our soil and water.

Helen Rohrer, Secretary
Kansas Watersheds Assn.
Junction City, Kans.

Ed: Mrs. Rohrer's letter was postmarked 17 Jan 59, more than a year after the subject article by F. T. Stolley was published. This, we think, points to the lasting qualities of GAZETTE material.

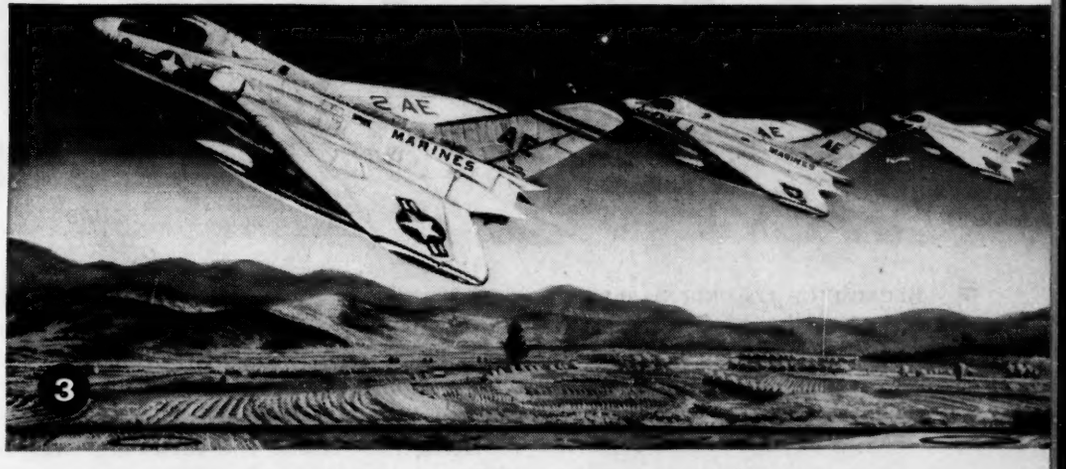




1 MARINE CORPS helicopters hover over TEW site, drop antenna, generators, radome and combat control shelter. Miniaturized components contribute to light weight.

2 WITHIN TWO HOURS TEW system is in operation. At approach of enemy aircraft, signals from antenna feed through monitored console to combat interceptor shelter nearby. Here range azimuth and altitude data are presented on plan-position indicators for command decision on interception.

3 ALERTED BY TEW, Marine jets scramble to intercept enemy. Extreme range of TEW provides extra minutes to throw up air umbrella over target area. Fighters carry air-to-air missiles like Sparrow I developed by Sperry.



NEW PORTABLE RADAR TO GUARD MARINE OUTPOSTS

Can be flown to site, set up in 2 hours

As fast on the move as a fighting Marine is the new "TEW" (tactical early warning) radar system being developed by Sperry for the Marine Corps. Only one-fourth the size and weight of conventional radars, TEW is easily carried to battle areas by helicopter, cargo plane, truck or amphibious vehicle. Within two hours, an 18-man crew can erect the TEW system and place it in operation.

Designed to detect both close-in and distant supersonic aircraft and missiles, TEW also determines their height—combining the functions of two present radar systems. Its operation is almost completely automatic, requiring only one operator to monitor its control console. Radar console and rotating antenna are housed in an inflatable radome, while the combat interceptor control shelter which completes the TEW system is located nearby. Both can withstand the rigors of arctic or tropical climates.

With its very long range and portable construction, TEW provides the Marines with the means to extend the nation's defense perimeter and insure added protection for key installations and outposts. Like the new super-radars developed by Sperry for the Navy's missile cruisers, TEW is an important contribution to our growing power to deter aggression.

SURFACE ARMAMENT DIVISION

SPERRY GYROSCOPE COMPANY
Great Neck, New York

DIVISION OF SPERRY RAND CORPORATION

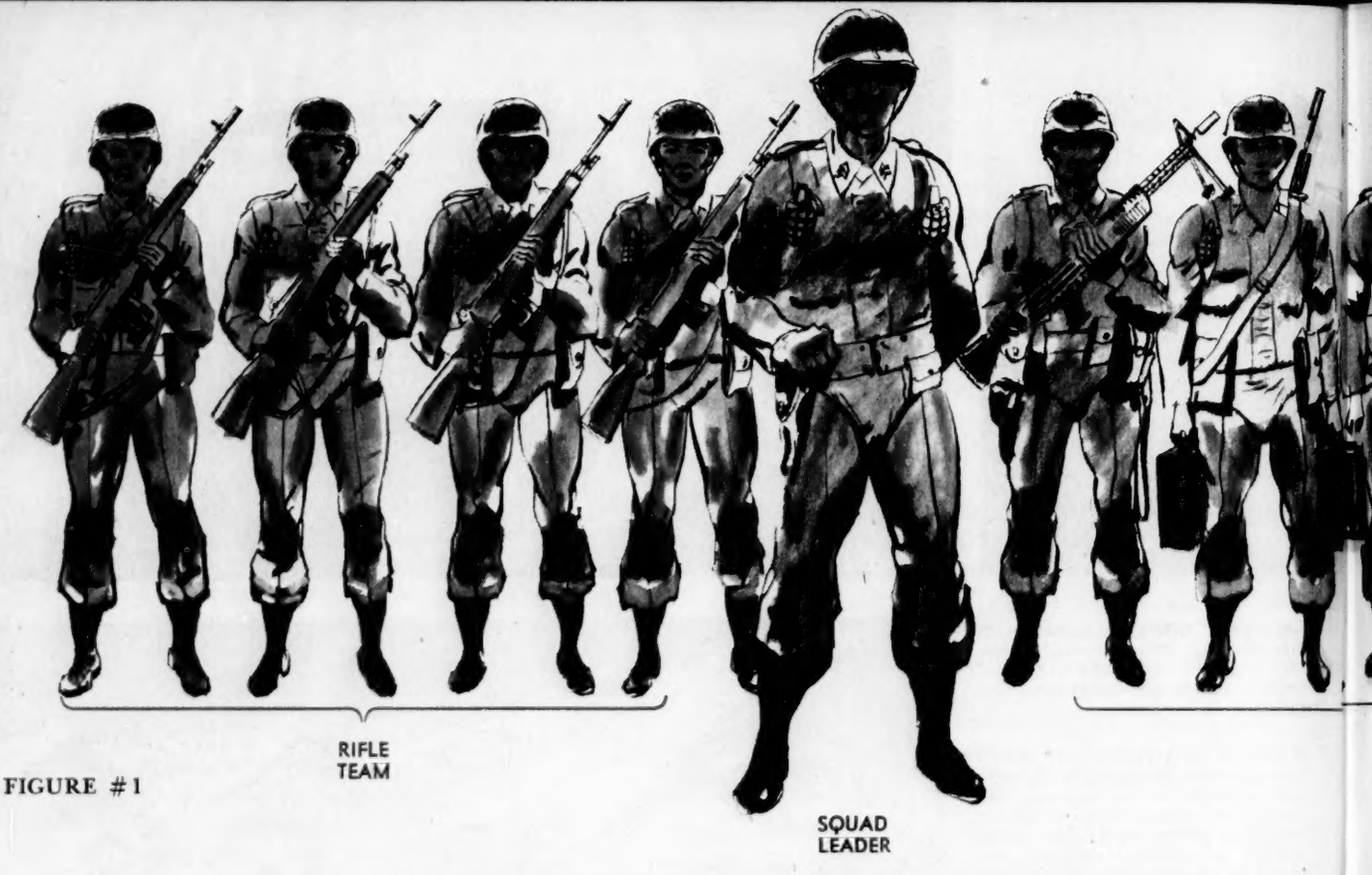


FIGURE #1

BECAUSE OF ITS UNDENIABLE IMportance, even in this age of faster-than-sound jets, guided missiles and super weapons, the infantry is still referred to as the Queen of Battle. Subsequently, many projects have been undertaken to better prepare and equip the infantry for participation in this Atomic Era. New weapons, new modes of transportation, improved communications and rations, are but a few of the many areas of development considered to date. There is one area, however, that I do not believe has received justifiable consideration. I refer to organization, or rather reorganization, of the basic unit of employment, the true backbone of any Marine Assault Force, the rifle squad.

Two major factors that have come into being in recent months demand that the current organization of this basic element of employment be re-evaluated.

First there is the fact that in the near future it is planned to arm the 4 man fire team, presently armed with 3 M1 rifles and 1 BAR, with the new M14 Rifle. This weapon, by replacing the M1 and the BAR, not only greatly reduces the time presently required for weapons orientation and training, but eliminates many restrictions placed upon the team in the past by its armament. No longer will the team's offensive and defensive formations and positions be governed solely by the tactical placement of weapons. Now the fire team leader has the immediate capability of employing his men as riflemen, scouts or automatic riflemen.

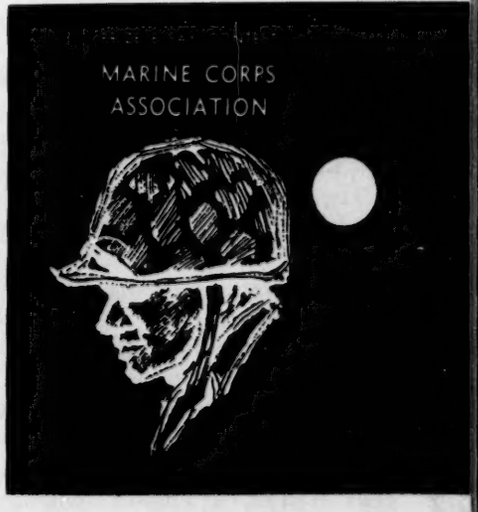
As the team will no longer center about one special automatic weapon, its leader will have a greater degree of flexibility. In addition, with the new M14 Rifle, the team will be provided with increased firepower. This is an important capability, for under the new concept of amphibious operations it is envisaged that a great deal of ground will be covered by surveillance rather than by physical occupation. Casualties within the team will no longer necessitate the re-deployment of men; merely the redesignation of targets and redistribution of fire. This will not only simplify the job, but will allow the fire team leader to concentrate on other vital matters during the more complex moments of combat. In addition, the number of casualties sustained should be reduced because of less redeployment and movement on the field of battle. Thus, with the introduction of the M14, the three 4-man fire teams within the squad will have their ability to carry out their assigned missions greatly improved; result—a vastly improved and superior "Queens" squad.

We cannot be content in the

By AMSgt T. W. Elliott

Corps, however, to simply integrate this new weapon and settle for the "automatic" improvements it will bring with it. Not if we consider the second of the 2 major factors that have recently come into being. This is that no Marine unit can be organized today without considering its suitability for transport by helicopter. This must be accomplished if our tactics are to be compatible with vertical envelopment. Based on a capability of 100 nautical miles at 100 mph ground speed, the capacity of the helicopters presently being utilized is from 10 to 18 combat-loaded troops. This allows a load of one rifle squad per helicopter or a total of 3 helicopters per rifle platoon. The machine gun section and other attached units will be transported in a fourth helicopter. This transportation organization retains small unit effectiveness through integrity, thus maintaining maximum combat strength. However, we must recognize that there will be helicopter losses, and therefore I maintain we cannot subscribe completely to a loading concept that will place all of our eggs in one basket. To overcome this one helicopter small unit loss, I recommend that we separate the rifle platoon members and their supporting units throughout the 4 helicopters, as mixed groups.

Many believe that this tactic detracts from the combat capability of units, as it requires too extensive an amount of reorganization upon landing. This is true only when we associate our weapons with the present T/O. I maintain that this temporary loss of combat effectiveness is more than offset by insertion of some of the supporting weapons into the rifle squads. In addition, this maneuver would further insure against a one helicopter loss of a



GROUP III
WINNER

platoon's supporting weapons. We cannot stop at this point, if we wish to truly and effectively reorganize; however, before I continue presenting my ideas on reorganization I ask that at this point you stop and review with me our current set-up, so that we will be on common ground when I subsequently compare the two.

Our present Marine rifle platoon organization is composed of 3 squads and a headquarters section containing one officer and 5 enlisted men. The current thinking is that we will retain this same organization in the future. Attached to and supporting this platoon in most operations is an 11-man machine gun section. In addition, for special situations the platoon may also have rockets, flame throwers, demolitions or engineers attached. This could increase a platoon's strength to as many as 74 men, with 3 rifle squads making up the assault force, the remaining 35 men in support.

These attachments can swell a 204-man company up to possibly 275 men. In Korea many rifle companies contained over 300 men. Keeping in mind that only the rifle squads of the 3 rifle platoons will compose the assault force, this means that of a possible 275 men in a company only 117 will be actually assaulting — less than 50 per cent. And remember, these support elements we have referred to so far are in the company and do not include the "true" supporting units. When we include these, such as heavy mortars, artillery, rockets, tanks and supply, the support vs assault figures are completely out of reasonable proportion. Here, in my opinion, is where actual reorganization is required and should be effected.

The machine gun section is still, without doubt, the most vital supporting element that an assault force possesses, especially in terms of employment directly in the attack. Let's analyze this weapon and the problems encountered by its crew in the various employment methods currently adhered to.

Many of the present difficulties encountered in the employment of the 11-man machine gun section can be traced to the weapon itself, the Browning Light Machine Gun M1919A4, a 49-pound weapon that is broken down into 2-man loads.

AMSgt Elliott enlisted in the Marine Corps in January '42, serving as a rifleman, scout and squad leader in the 2d Raider Bn from April '43 to January '44, and as machine gun squad and section leader and later platoon sergeant in Wpns Co, 4th Marines until November '44. Sergeant Elliott has since served with the 1st Marines in China, the 6th Marines in the Mediterranean and the 7th Marines in Korea. He is now with the Equipment Board at Quantico.

This weight and load distribution make it difficult for the machine gun units to stay up with the assaulting force, and virtually impossible to be employed while engaged in a forward movement, thus greatly restricting effective use of the weapon. Another limiting factor is the gun's dispersionary characteristic, permitting it to be utilized for overhead fire only in rare situations. In addition the displacement of the machine gun forward is normally attempted only when rifle units can provide covering fire. Thus, the question arises in my mind—Who is supporting whom?

Additional problems for the section arise from the "attached" label. This does not permit its integrating into the platoon but brands it as a "tag-a-long," which means that the section is trained within the weapons platoon of the company; not affording machine gun crews the opportunity of becoming familiar with a particular rifle squad's habits, traits or idiosyncrasies.

This situation creates additional burdens for the platoon as well as the section. These are particularly noticeable when the outfit is assuming the hasty defense. Under our present concept, the platoon commander dictates where the machine guns are to be emplaced, and the machine gun leader then sets the weapons into position. However, prior to their emplacement, the rifleman is already digging in, consequently many times one is displaced by the other, requiring unnecessary movement in the line, both man and time killing. Another problem frequently encountered and a common sight in combat is the machine gun section trailing along behind the attacking rifle squads. The gun's direct fire limitation, difficulty in maneuvering, weight and load distribution are largely responsible for this; however, many times in the platoon commander's attack order, the mission and the placement of the guns are an afterthought. Another common sight is the "mad dash" of the machine gun section forward after the overrunning of an objective by the assault force. This dash is a complete waste of fighting men and firepower. In the initial moments of assuming the hasty defense or the pursuit by fire phases of the operation, where are the machine guns—sitting in the rear or displacing forward? They were left behind to provide overhead fire, yet in actual combat this is rarely if ever used. In actuality therefore, these guns and men serve no useful purpose in the attack; they trail along or sit awaiting orders. Result—idle weapons and vital men not participating in the attack. Past experience has shown that when an attacking unit closes within 100 yards of the enemy, they need a maximum of firepower to keep the enemy defenders buttoned up and thus suppress their fire. This fire cannot be delivered, at present, by supporting units when the 2 forces come into proximity, because of the safety factors which we observe. It can be seen that a means of providing more direct firepower during this crucial phase would indeed be welcome. This thinking also applies to the consolidation phase where the possibility of counterattack is always imminent, and supporting units are displacing forward. Here the assault force leaders require all of the firepower possible to hold gained ground. The present plan is to rearm these machine gun sections with the new M60 all-purpose machine guns. This weapon, which can be fired from the hip, shoulder or prone position, replaces the Brown-

ing Machine Gun M1917A1 and M1919A4. Offensively it is mounted on a bipod, similar to the BAR; defensively on a tripod. The possibilities and opportunities presented by the introduction of this new machine gun, with its weight and flexibility advantages, open up new avenues of approach in regard to the employment of machine guns and reorganization—if we are intelligent enough to recognize them.

I believe that these problems which I have highlighted in the preceding paragraphs can be eliminated and our basic element of assault, the rifle squad, can be greatly improved by one move: reorganize the present rifle squad as proposed in Fig. #1.

In practice, the reorganization of our current squad to that which I propose would be comparatively easy, for in reality it is a replacement (man for man) with no new jobs or skills being called for. Let's look at the improvements this reorganization could bring about if put into effect!

1) The machine gun in the rifle squad would give it increased direct fire capability and would more completely utilize the weapon.

2) The insertion of the machine gun into the rifle squad would place it under the direct cognizance of the rifle squad leader.

3) Now the platoon commander will have 3 machine guns in place of his former 2.

4) In combat operations these machine guns can provide the base of fire and the rifle squad will still have 2 maneuvering elements.

At this point, mountains of ammunition, columns of vehicles and enormous supply units may begin to appear in your mind's eye. Certainly this machine gun in the rifle squad will create an additional logistical burden. However, the introduction of the M14 rifle and the M60 machine gun, both chambered to the same cartridge (NATO Round), will considerably reduce the types of ammunition required to support our rifle companies. As for the manload burden, this could be considerably reduced by utilizing the "mechanical mule" as the direct supply vehicle of the platoon. A further means of lightening the logistical burden would be to package am-

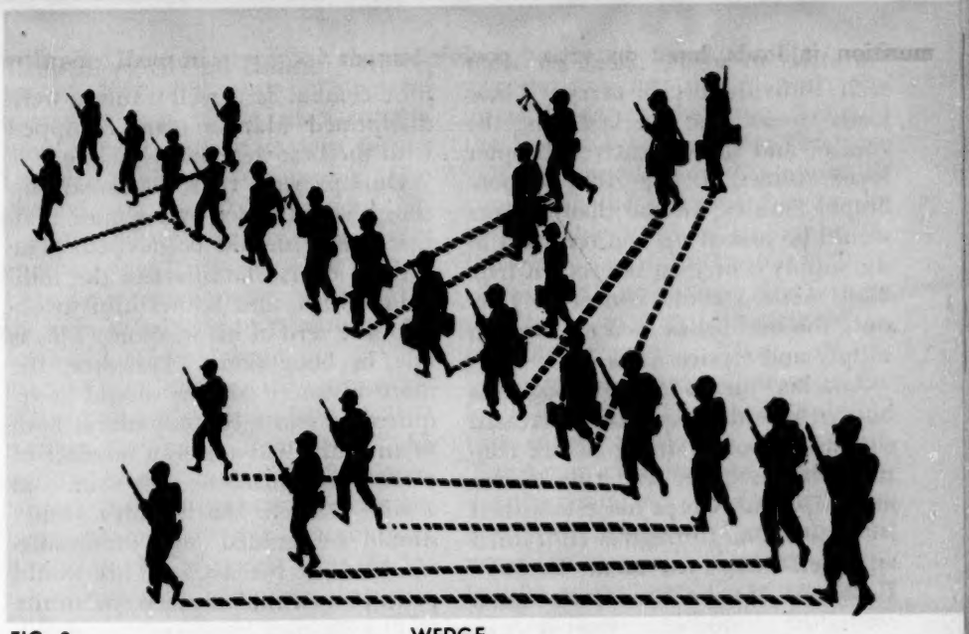


FIG. 2 WEDGE

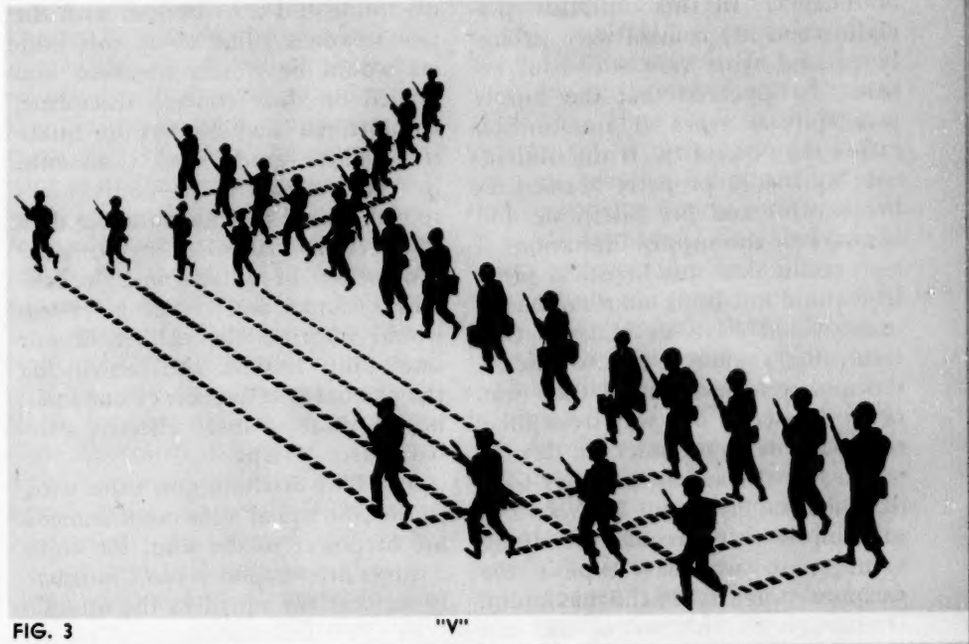


FIG. 3 "V"

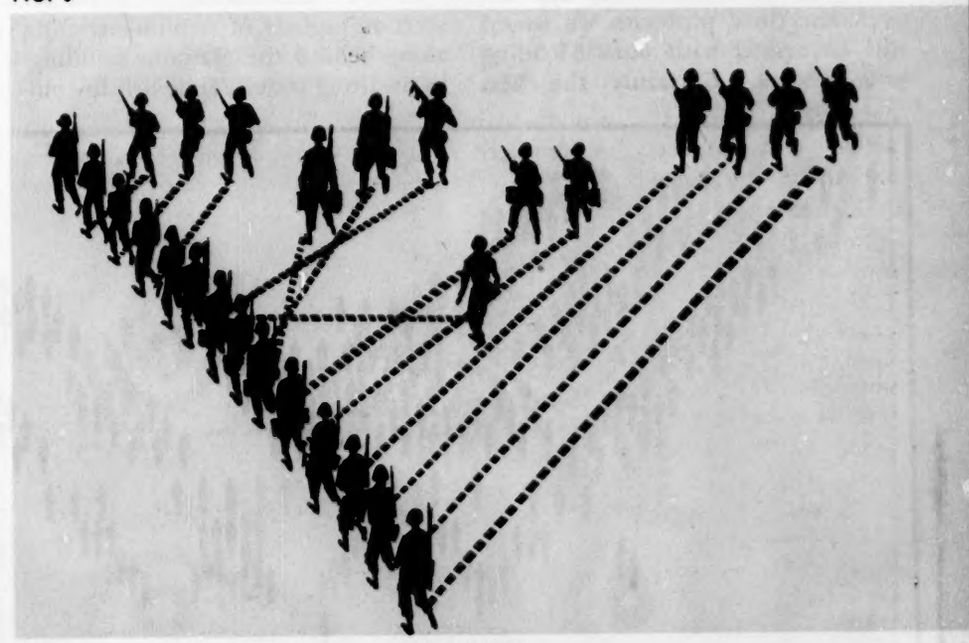


FIG. 4 SKIRMISHERS

munition in loads, based on what each individual can carry. These loads would be packed on the "mule" and subsequently helicopter lifted, intact, to the rifle platoon. Empty "mules" in the platoon area would be picked up and returned to the supply center on the return trip. This method could conceivably reduce the number of men required in supply and service units.

Another means of reducing this burden would be to place increased emphasis upon training in fire control, fire discipline and rifle marksmanship. This Corps has established its reputation through well-trained and well-disciplined men. In WW II the 2d Marine Raider Battalion contained automatic weapons in abundance. In this unit, fire discipline and fire control were strongly stressed with very successful results. It appeared that the supply problem was *types* of ammunition rather than quantity. If the individual Marine is properly trained in fire control and fire discipline and is aware of the supply limitations, I am certain that this logistical problem would not be as mountainous as some would have us believe. Certainly the answer is not to discard the new weapons, restrict their use, or to detract in any way from their true purpose by gimmicks or devices which lose the advantages they were designed to give us. The obvious solution is to overcome the disadvantages so we may exploit the weapons' potential to the maximum. If through our history we did not overcome these problems we would still be armed with muzzle-loading smooth-bores. Certainly the best possible formula for victory in small unit combat is a well-trained, well-disciplined Marine team equipped with the best weapons available.

Our present rifle marksmanship course is outmoded and a more realistic course should be devised. The present course familiarizes the individual with, and allows him to obtain, the zero of his weapon. This is fine in boot camp. However, the more advanced Marine should be required to run a combat course both as an individual and as a member of a rifle team/machine gun team and a rifle platoon. Each man's ability should be graded and the results recorded in his SRB. This would provide unit leaders the opportunity to observe and improve fire control, discipline and distribution, with the new weapons. The small unit leaders would be closely observed and graded on their control, discipline, employment and leadership qualities. These grades and comments, by being a part of the individual's record, would provide valuable data to selection boards dealing with the promotion of small unit leaders. This course and grading system would improve the caliber of our small unit leaders, thus enhancing the combat effectiveness of our small units; result—a more effective combat Marine Corps.

5) This machine gun team within the rifle squad adds more immediate firepower to the unit, for being a direct fire weapon it can continually support the squad in the attack.

6) Previous machine gun "faults" such as periods of non-use; trailing along behind the platoon; standing-by awaiting orders; time lost in communication between the rifle squad thru the platoon commander to the machine gun section leader; the possibility of confusing or misunderstanding requests or orders for the use of the machine guns; the delays encountered in determining the priority target for the guns; now are eliminated, for each squad has its own machine gun.

7) The flexibility of the rifle platoon commander will be increased, for the rifle squad now can move more freely with a machine gun for direct support. Not only is there no loss of any present capability, as has been shown, the capability of the rifle squad and platoon has been increased.

By an increase of 3 men within the rifle platoon all of these improvements could be accomplished. Or is it an increase? The normal machine gun section (11 men) attached to the rifle platoon has been eliminated. In all we actually gain 8 men, and remember, this reduction is in the supporting group. By having the machine gun under the rifle squad leader a clear-cut chain of command and line of authority is developed, eliminating special unit leaders for the machine guns. In addition the weapons are under the rifle squad leader and platoon commander where sound tactics dictate they belong.

At this point a question of flexibility of the company arises. Critics may argue that the company commander loses a "company" weapon under this proposed system. Well let's see. Under the present organization he has 6 light machine guns which in the attack are normally at-

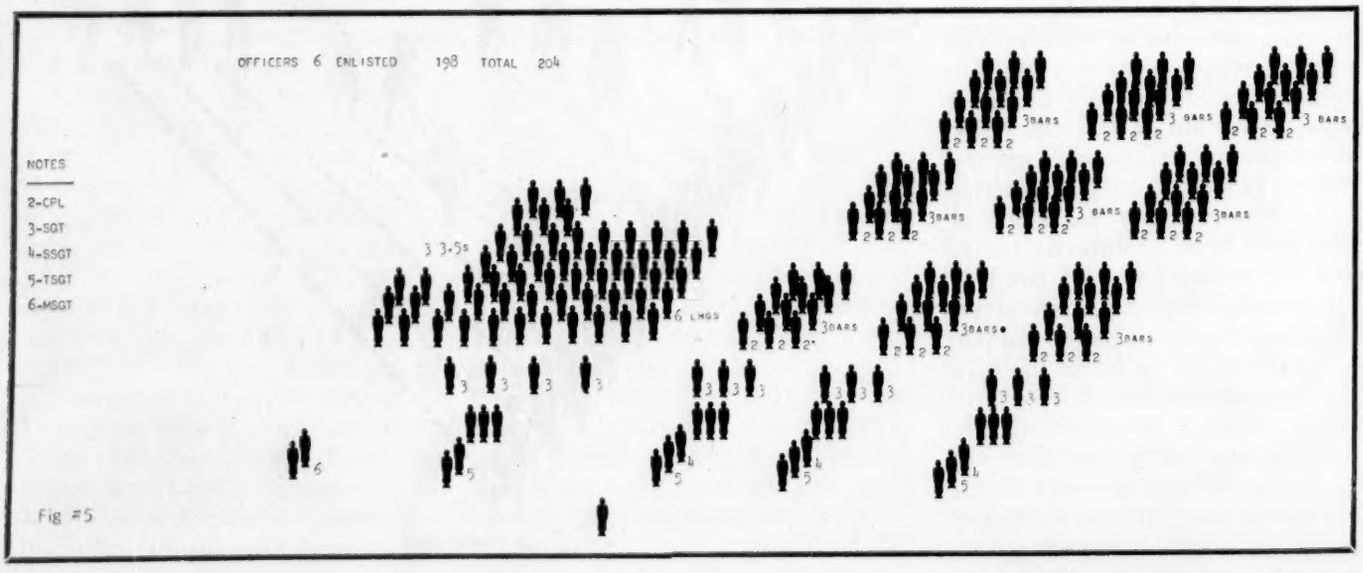


Fig #5

tached to the rifle platoons.

In my reorganization, the company commander now has 9 light machine guns, for although they are not directly under his control he still controls them through his rifle platoon leaders. In special situations the capability of setting up batteries of machine guns remains available, but with more weapons. The need for retaining the machine gun platoon, or any combination of sections, in the company is questionable. They don't serve any useful purpose trailing along behind the rifle platoon and the delays encountered in employing them are a waste of time. However, a company commander normally retains a rifle platoon in reserve and these guns are available for his on-call employment. In addition the commander may increase the machine guns in the assault force of the company by simply withdrawing them from the reserve rifle squads. In the modern concept of amphibious operations, the use of lines tied-in from unit to unit along a lateral MLR is out. Now companies will occupy segments of a battalion perimeter defense. As previously stated, ground will be controlled more by fire and surveillance than by physical occupation. Certainly this concept indicates the need for more machine guns in a company. With this proposed reorganization of the rifle squad, the company has just that, and certainly this affords the company commander more flexibility than the present organization.

The additional ammunition carrier enlarges this machine gun team to 5. This is based primarily on estimated normal ammo requirements. Normally, units in offensive combat for a whole day actually have targets approximately 5 per cent of the time —72 minutes. The normal ammunition consumption per day with 72 minutes of *target combat,* and 3 to 5-round bursts keeping a target under cover for 15 seconds, should be 1400 rounds. Allowing a safety margin of ½ (700 rounds) for unusual situations, results in an ammunition load of 2100 rounds per gun. Because of the lighter ammunition (NATO cartridge) being introduced we can enlarge the machine gun ammunition box to hold 275 rounds with the total weight still being less than our present load. Further, a short 100-round belt should be carried by the gunner to provide the capability of immediate fire. Providing these ammunition adjustments, would allow the 5-man machine gun team to carry 2025 rounds. The ammo carriers of this machine gun team armed with M14 rifles would play a dual role, as ammo carriers and rifle protection for the gun. This team becomes self supporting on the small unit tactics scale, and in my estimation more closely parallels the new concept of self-contained fighting units than our present organization.

As illustrated in Figures #2, 3 and 4 there are only minor differences in squad tactics as a result of this reorganization. In Figure #2 (the wedge) you will note that the machine gun team will move to the side the squad leader designates. As a result, our present wedge becomes a right or left wedge. In Figure #3 (V) the machine gun team remains in a staggered column while the 2 rifle teams form the V with the squad leader as the base. Actually the V now becomes a Y. This provides the squad leader the option of employing the machine gun in the best possible position. In Figure #4, skirmishers-right as illustrated indicates there is no change. Nor is there any change to skirmishers-left, or the echelon formations.

Getting away from combat tactics for a moment let's see how suitable this squad would be "state-side." The 5-man machine gun team is under the command of a corporal who also is the gunner. The third ammunition carrier in close order drill will be a file closer. Otherwise there is no effect upon our drill. Our present weapons platoon (Fig. #5) when conducting close order drill has to be reorganized. This is eliminated by this proposed organization, (Fig. #6). Here the 3 machine gun sections of 11 men each, plus the weapons platoon headquarters section comprising 5 men, for a total of 38 in all, are saved. As stated previously, however, this saving does not detract from the company's capabilities. This reorganization will more fully utilize these new weapons and exploit their capabilities to the maximum.

I sincerely believe that this reorganization would provide the Corps with a more compact, better organized, less complicated rifle squad. A direct result of this would be a stronger "Queens" squad, and a stronger squad would ultimately result in the prime objective of any improvement — a better Marine Corps. USMC

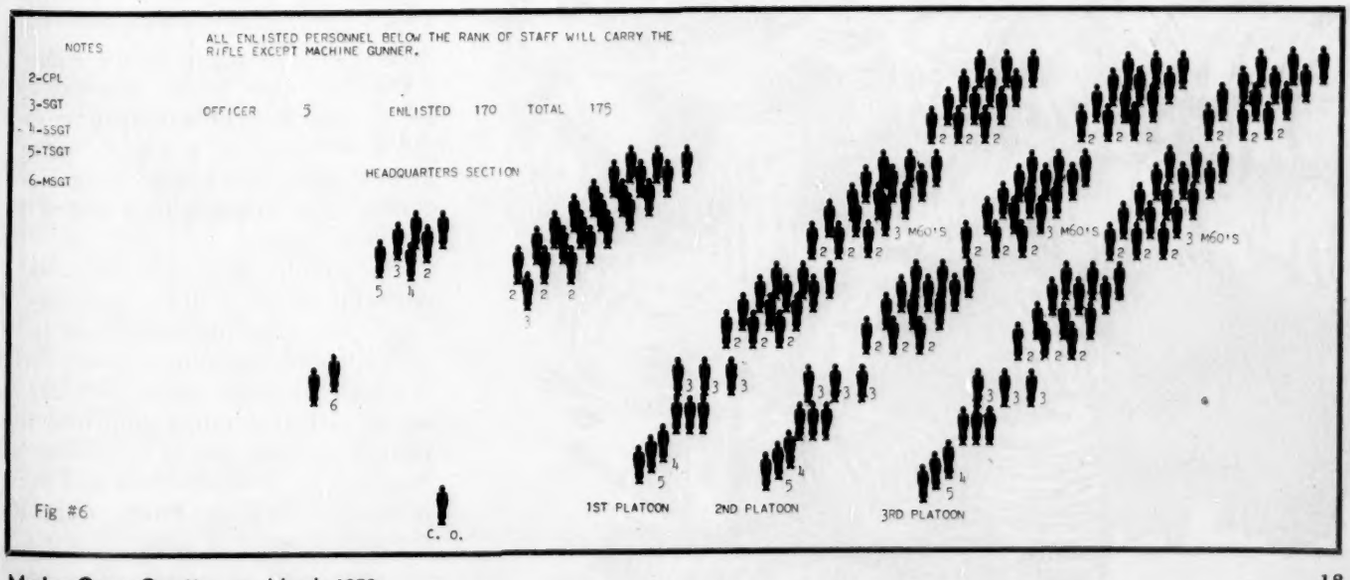


Fig #6

IMPROVISED DEMOLITIONS

By AMSgt J. P. Driver

ONE OF THE ASSIGNED TRAINING objectives of the Marine Corps is to have each man familiar with demolitions and land mine warfare. It is not entirely certain that this objective has been reached. There is a tendency on the part of most unit commanders to call in a specialist for any given mission.

In the next action we may not have the specialist on call. It is probable that we may not have our own specialized demolition materials on hand. The shaped charge for a pill box, the Bangalore for barbed wire, and composition "C" for cutting steel, represent the ideal. It is possible that all we will have is commercial or enemy high explosives. The mines on hand may be American, Allied or of enemy origin.

To make the most of the materials on hand we must use initiative and common sense. We must improvise.

The text of this article may deviate slightly from the standard uses of high explosives. But, if the text deviates, there is to be no deviation from recognized safety precautions. There are few fields of endeavor where the penalty for a mistake or carelessness are so immediate and drastic.

An improvised charge is not inherently dangerous, but explosives can be intolerant, unstable and unforgiving. This can be explained by saying powder is intolerant of bad handling, and unforgiving of carelessness. The unstability is a chemical reaction that manifests itself with a loud bang when either of the other 2 conditions is supplied.

Demolitions are a wonderful and flexible tool, able to blast a foxhole in frozen ground, or demolish the enemy's most elaborate fortifications.

On the other hand, demolitions are a simple and deadly weapon, capable of stunning a single enemy with a small concussion charge, or destroying a squad with a properly emplaced mine.

The simple statistics of the casualty radius for an M16 anti-personnel mine have been duly memorized, but not fully understood by a great many Marines. In more easily associated terms, picture 3 mines emplaced in Yankee Stadium, one at the pitcher's box, one in short left field and one in short right field. These mines, if detonated, stand a good chance of

inflicting casualties on the entire team, from the catcher to the outfielders. What an intoxicating thought for a non-Yankee fan. But consider the military applications. Here are the ingredients for a good explosive ambush: all it takes is wire, a couple of mines or artillery projectiles, an electric blasting cap for each mine, and a "hell box," or a battery. Such a device might well be kept in the back of a company commander's mind for that "someday-somewhere" opportunity.

There are times when a napalm charge is needed or demolition charges are in short supply. The portable flame thrower, because of its great weight and short battle life, might not always be on hand.

A satisfactory napalm charge can be constructed with the following materials. Needed are a .30 caliber machine gun ammo box, a white phosphorus hand grenade, and enough napalm to fill the box about three-quarters full.

The fuze is unscrewed from the white phosphorus hand grenade. A hole is drilled in the lid of the ammo box the diameter of the threads of the fuze. The fuze is placed in the hole and the grenade is screwed back into the fuze from the underside of the lid. A thin rubber, leather or paper gasket is placed on top of the grenade to seal leaks. The napalm is added and the lid is closed and latched. The safety lever of the grenade is bent slightly to conform with the top and side of the ammo box.

The charge is then ready for use. However, if the charge is not to be used immediately, it should be prepared, but not assembled.

The charge is carried to the objective and thrown. A two-handed basketball shot by the average Marine can be made with fair accuracy to about 8 or 10 yards. A word of caution, however. The burst of the charge is erratic, sometimes large and sometimes small. The getaway of the operator must be fast. If the operator's getaway is impeded or the charge is to be hand placed, an 8 or 15 second delay detonator should be used in place of the grenade fuze. This is to allow the operator time to get to safety. For a larger hand-placed charge, the .50 caliber machine gun ammo box of napalm can be used.

One of the most disconcerting things that happened to companies moving on the line in Korea, was to have the units they relieved inform them that they had put out a couple of mines for local security. Pressed for information, they pointed out an area the size of a football field, and gave out the further scoop that the men who knew their exact location had been evacuated to the States.

Certainly a small non-standard field of this type is a positive menace to the company. It restricts maneuver and repair or improvement of the position. It also forms an ever-present nagging mental hazard for the men in the immediate area.

On the other hand the effect on the enemy becomes less and less as the trip wires rust away, or become cut by shell fire. Mines can become tilted or clogged with ice or sediment. The mines may be exploded by shell fire.

But the decision to lay mines is tactically sound. To deny the company the use of mines is like denying them the use of hand grenades. The placing of an AP mine field should be a regimental or battalion decision, but putting out a couple of mines for local security should be a company commander's prerogative.

AMSgt Driver enlisted in the Marine Corps in November '42; spent 14 months in the South Pacific during WWII and 16 months in China after the war as an aviation ordnanceman. Since that time he has served 2 years as an infantry platoon sergeant and 6 years as an EOD technician, including 3 tours in Korea. His decorations include the Bronze Star and Commendation Ribbon, both with "V," and his current station is Indianhead, Maryland.

It is unnecessary to point out that a standard company mining procedure, backed by well-trained men and sound mining doctrine, would solve this problem.

How then can we gain the protection of an anti-personnel mine without its attendant dangers? A possible alternative is a controlled mine.

This would work on the same general principles as a harbor defense controlled mine. There are but 2 ways of control available to the company without the addition of much equipment. These are by infrared observation at night, or by acoustical means.

The materials needed are few and common — an M3 anti-personnel mine, an electric blasting cap, wire for the hookup, 2 sound powered phones and a "hell box." If the mine is to be fired by infrared observation, no phones are needed.

The mine is placed in the area to be covered. If possible the mine and wiring should be suspended about 8 feet above the deck. This makes its detection at night very difficult and greatly increases the effect of any burst. The firing circuit is more vulnerable to shell fire, but any breaks are easy to find.

The phone is placed in the mined area where it can best listen. Some type of cover should be between it and the mine so it will not be destroyed in the explosion. The pick up range of the phone can be extended by placing dried leaves, light brush, tin cans or any noise-making material in the mined area. Why not have a hookup similar, on a modest scale, to the German acoustic sentry mine field? The operator listens for any suspicious sounds. Upon receiving them he detonates the mine — probably as close as any rifleman will come to push button warfare.

If more than one mine is needed, it can be tied-in with detonating cord. If more than one detonation is desired, there will have to be a different firing line for each detonation.

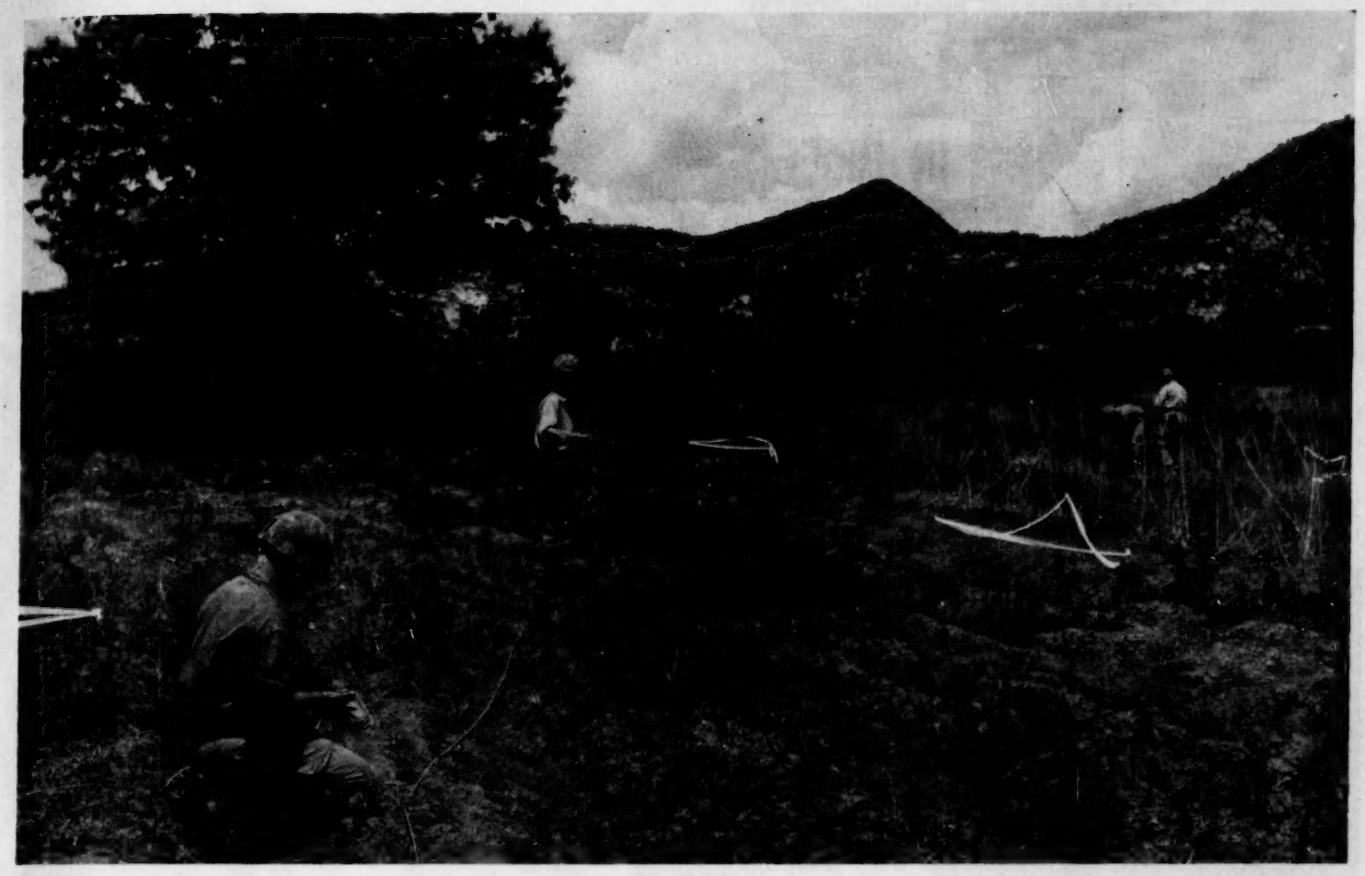
In the event heavy responsibility is to be placed on the mine, the wiring should be periodically checked with a blasting galvanometer to make sure it is complete.

The same general hookup is used for night observation by use of an infrared scope.

Any type of artillery, mortar round or demolition charge, can be substituted for the anti-personnel mine. If it is desired to protect specific objects, such as our own barbed wire, a napalm or white phosphorus round can be substituted for the high explosive charge.

With the 60mm mortar no longer with us, overhead illumination can be supplied by using an M48 trip flare on the same basic set up.

Sometimes offensive grenades are not in supply, or a small hand demolition charge is needed. It is not known by all Marines that the standard Mk II hand grenade fuze can be screwed into a one pound TNT block or the M5 demolition block. A word of caution. Sometimes the TNT blocks need reaming out slightly, and a hole must be punched in the C-4. A non-sparking tool, such as the handle of a cap crimper, or a hard, wood stick should be used. In the event that an entire block of C-4 is not needed, as much as desired can be cut off, and the charge



taped to prevent crumbling.

In an attack up a steep hill, the assaulting troops are sometimes appalled to see a grenade miss the target and roll back down the hill like a cast iron boomerang.

The system of letting the safety lever snap and holding the grenade for a few seconds is far from satisfactory.

An all-ways action impact fuze such as the British use would solve the problem nicely. Unfortunately no such item appears on our supply list.

However, a couple of stiff, wire legs, standing out at angles to the grenade, will reduce this tendency to roll. Care should be taken that the wire does not interfere with the operation of the safety lever, or the action of the thrower. The wire that comes wrapped around the grenade packing case is adequate for this purpose.

The average Marine has a great and consuming interest in demolitions. With the possible exception of live weapons firing, nothing interests him more. Teach him how to knock down a tree, and he will eye the most imposing of man made structures and mentally reduce them to rubble.

This interest must be developed and expanded. This can be accomplished by training and planning. There is an old saying (among demolition men) that familiarity breeds contempt. This is not so. There is no reason why care in handling explosives should not become habit forming, and only firm and intelligent supervision can accomplish this.

USMC

★ ★ ★ ★

Captured

AT MARINE BARRACKS, KODIAK, ALASKA, the command was greatly concerned about a high auto accident rate. To reduce the number of accidents, a comprehensive accident prevention program was instituted, designed to reach all hands. Progress was made and a definite decrease in accidents was seen. That the program was actually reaching all hands was apparent when the command read the following accident report that had been submitted by a Marine motor patrol:

"Vehicle #1 was proceeding around the end of runway on the gravel road heading toward air terminal. Speed estimated at 15 mph. Seagull was sitting near the road. Upon approach of vehicle #1, seagull flew into the air and into the windshield of vehicle, shattering same. Driver of vehicle #1 got out of vehicle, captured the injured bird and retained it for the investigating officer."

LtCol Albert Wood

2dLt Clifford C. Doughty, honor graduate of the 3-58 Basic Class, is awarded the Marine Corps Association sword by LtGen M. B. Twining, Commandant Marine Corps Schools, Quantico, Va.

A former Master Sergeant with 9 years service in the field of communications, Lt Doughty is scheduled

to attend the Communications Officers Orientation Course prior to being transferred to the 1st Mar Div, Camp Pendleton, Calif.

He is a native of Bonita, Calif.

A rocket-propelled ejection system that can safely eject a pilot at ground level or high altitudes is being tested by the Navy.

Known as RAPEC (Rocket-Assisted Personnel Ejection Catapult), it works in 2 phases. First, a small rocket pushes the pilot's seat out of the plane. A second rocket projects the seat to the desired altitude where the seat and pilot are separated. The pilot's parachute then lowers him safely to earth.

In a preliminary test a dummy was catapulted 225 feet into the air and was parachuted back to the ground safely.

A pocket-size detector is now available to warn engineers and technicians of exposure to high-intensity radar beams. Produced by Erickson Products Co., the detector's neon light and earphone give warning before the radar beams become a health hazard.

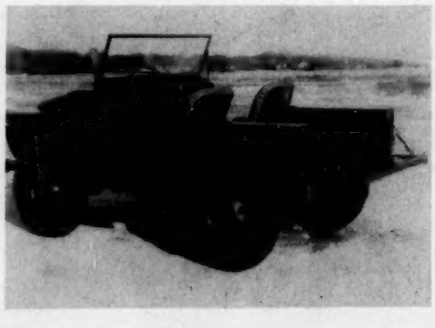
Maj Archie J. Clapp, Jr., currently serving at HQMC, has patented a pocket computer for helicopter pilots.

Designed primarily as a safety aid, the new computer makes possible quick calculations for a proper load, a prime factor in the safe operation of helicopters.

With the computer, the pilot moves a series of dials accounting for all payload factors, and in minutes can calculate what he can carry.

An improved version of the WWII mine-clearing "Snake" is now being tested by troops in the field. Developed by the Army Engineer Research and Development Laboratories, the 400-foot unit is towed by a tank to the mine field, then pushed over the field and detonated by firing a machine gun from the tank into a bullet-sensitive fuse. Specially designed charges provide improved mine-clearing performance with less explosive than in the old model.

A versatile, quarter-ton vehicle, called the Mighty Mite, will be in production soon for the Marine Corps by American Motors Corporation.



Powered by an air-cooled aluminum V-4 engine, it can ford water to a depth of 60 inches and with its 4-wheel-drive climb a 100 per cent grade. The company has a contract to build 250 for evaluation and testing.

With the launching of the new ZPG-3W, the Navy has put the world's largest non-rigid airship in the air. The prototype of a new class, it was designed expressly for airborne early warning duties far at sea.

Concealed within the envelope, or "bag," is the largest revolving radar antenna ever carried by any type aircraft. The huge airship is reported to have a capacity of approximately 1½ million cubic feet and is powered by 2 Wright R 1820-88 engines. A 21-man crew will make up the normal complement of the "blimp."

MajGen Wang Chia Nan, Deputy Commandant, Nationalist Chinese Marine Corps, greeted fellow NCMC officers at Basic School during a recent visit to MCS, Quantico, Va.

The General, a 1954 graduate of

Quantico's Senior School, toured East and West Coast Marine installations where he observed organization and training methods.

The thermograph, an infrared device developed for the Army, can take pictures in the dark. The "heat" or infrared radiance emitted by an object or person creates the image on film in a Polaroid Land camera. A research instrument, it was developed by the Barnes Engineering Co.

A tilting-rotor, fixed-wing aircraft — Bell Helicopter Corporation's XV-3 — has been flown with full conversion of rotors.

The convertiplane can take off vertically, like a helicopter, then tilt its rotor shafts forward to fly as an airplane. In recent tests it flew at an altitude of 4000 feet and at a speed of 115 knots while completely converting its tilting rotors.

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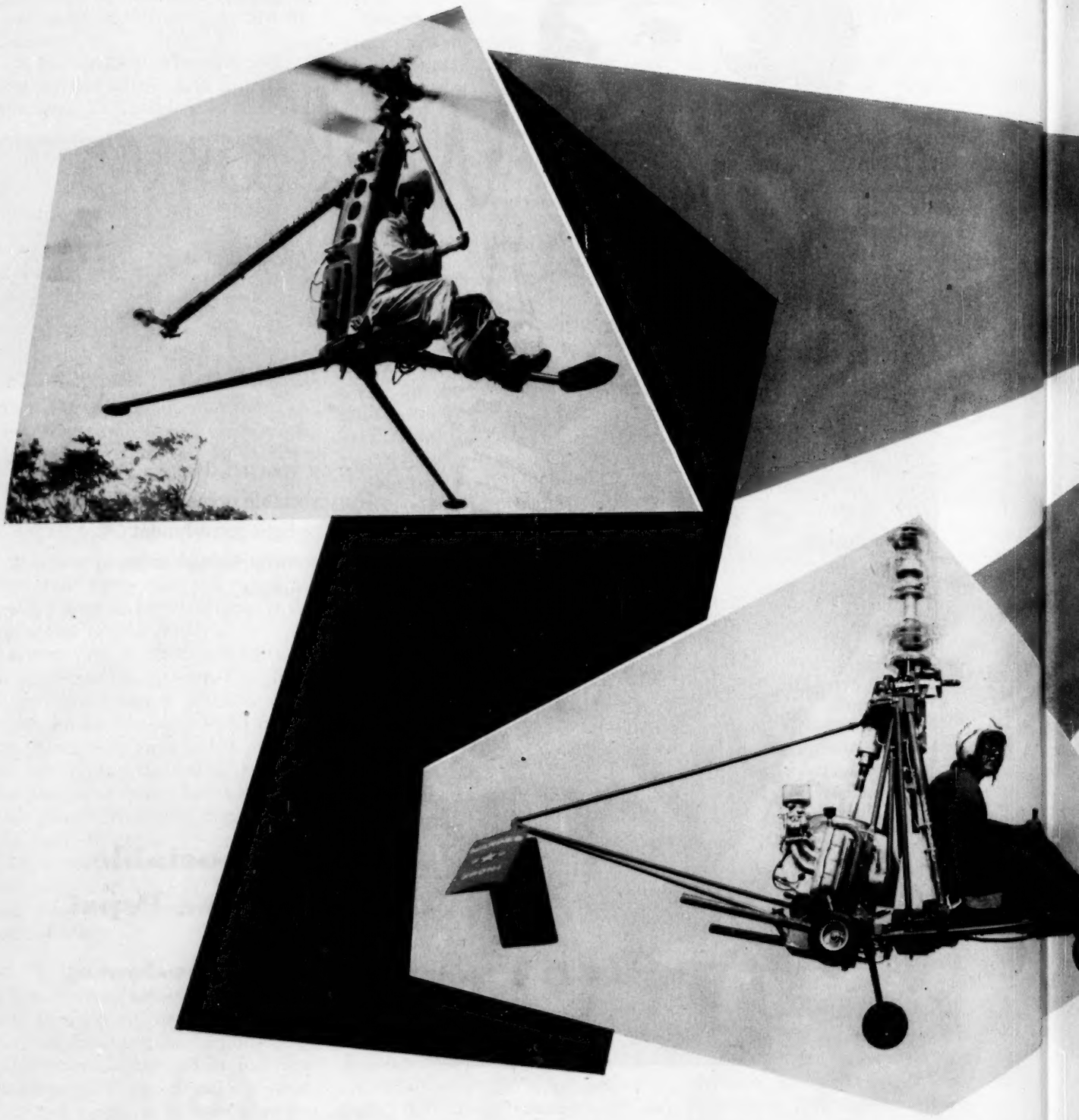

S IN THE MARINE DIVISION

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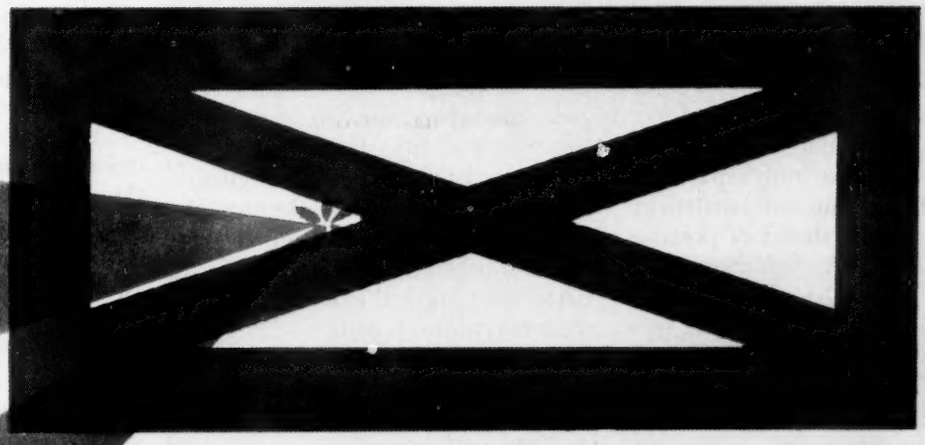

By Capt O. D. Newton

DOES THE NEW MARINE CORPS infantry battalion have sufficient reconnaissance capability to cope satisfactorily with its tremendously expanded Intelligence requirements?

This question plainly cannot be answered with a simple yes or no, but it is nevertheless a question for which a definite answer needs to be established before we are forced to resolve it the hard way—in combat.

As we are all aware, the organization of the new battalion was specifically designed to provide it with increased mobility, shock power and reconnaissance capability necessary to implement modern Marine Corps concepts of warfare. No one will seriously dispute that this has been accomplished. The increase in both shock power and reconnaissance capability, however, was achieved primarily by the addition of a fourth rifle company, and it therefore follows that the true measure of the new battalion's combat potential—its firepower, staying power and tactical flexibility—must depend on the extent to which it proves necessary in actual combat to employ the additional company for reconnaissance purposes.

To leave the battalion commander no choice but to use his fourth company exclusively or primarily for reconnaissance, obviously, can lead only to a built-in reduction in the battalion's combat potential, and to nullification of the tactical advantages afforded by the new "square" structure. In view of the enormously increased Intelligence and security requirements which are imposed on the battalion under current amphibious warfare doctrine, this is not a remote contingency which can be

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lightly dismissed, or accepted casually as a calculated risk.

Basically, of course, the problem has its roots in the unit-separation concept. On the nuclear battlefield, or even under the threat of possible atomic attack, the battalion commander finds no friendly units on his immediate right and left to provide fire support or flank and rear security. The nearest friendly force may be 3, 5, 7, 10 miles away — possibly even farther.

Under such circumstances, patently, the battalion commander not only has an absolute requirement for enemy information but he has got to conduct reconnaissance outward around the entire periphery of his position to get it—not merely within a narrow sector of his front as in the days of WWII and Korea. Furthermore, in order to employ his unit effectively in either offensive or defensive situations, he clearly should have the capability to detect major enemy activity occurring anywhere within a minimum distance of 4 miles of his position at any given time.

Thus stated, the problem reduces itself to an exercise in simple arithmetic. The area of a circle with a 4-mile radius is 50 square miles. The circumference of such a circle is 25 miles.

Manifestly, it is impossible for ground reconnaissance patrols to reconnoiter thoroughly an area of this size within the time limits which ordinarily will be available.

Nor does it seem logical to suppose that the problem can be solved adequately by Intelligence reports furnished to battalions by higher headquarters.

A moment's reflection will serve to show why. First, the infantry regiment has no organic Intelligence collecting capability other than its own battalions in contact with the enemy. Second, Division G-2 (despite the fact that it can count on the expanded potential of the new recon battalion and other Intelligence sources) cannot possibly be expected to provide enemy information of sufficient timeliness and detail to meet the immediate, localized, variegated Intelligence requirements of 9 widely dispersed battalions in fast-moving combat situations.

All things considered, it seems reasonably evident that there is an urgent necessity for enhancing the infantry battalion's reconnaissance capability, and it is the purpose of this article to focus attention on a development which shows great promise for accomplishing just that —the 1-man helicopter.

The idea of using small helicopters for reconnaissance is not new, of course, and this article lays no claim to originality for it. Insofar as we know, however, there has not yet been evolved a basic concept for their tactical employment, and it is necessary to advance such a concept, even if it's only tentative, in order to provide an adequate basis for subsequent discussion of the hardware itself. Clearly, in any case, it will not do to enter a plea for Marine Corps adoption of 1-man helicopters without explaining how it is intended that they should be used.

Tentatively, each infantry battalion commander would have under his operational control at all times in combat at least 2 lightweight 1-man helicopters or "rotorcycles" and 2 pilot-observers. These helicopters would be used to augment but not to supplant ground reconnaissance patrols. Each rotorcycle would be radio-equipped in order to permit the pilot to relay his findings instantly to the battalion S-2.

Generally speaking, the mission of the 2 pilot-observers would be to conduct aerial reconnaissance over an area as wide as possible around the entire perimeter of the battalion position for the purpose of detecting major enemy forces, installations and movements within that area. Attention would be particularly concentrated on critical terrain beyond the effective range of ground reconnaissance or otherwise inaccessible to ground observation.

Although specific reconnaissance missions would need to be assigned by the battalion commander or his S-2 prior to each flight, it appears that rotorcycles would have special usefulness in the accomplishment of these 4 vitally important functions:

1) Acquisition of target information for calling down supporting fires delivered by command echelons above battalion.

2) Location of enemy forces for attack and destruction by the battalion.

3) Acquisition of terrain information for use by the battalion commander in planning offensive actions or in organizing his defense.

4) Establishment of daylight surveillance over a wide area around the battalion position to maintain security and to prevent surprise attack by numerically superior forces.

The flight patterns used by 1-man helicopter pilots in the accomplishment of these and other missions would of course vary in accordance with the tactical situation, the terrain and other factors. In general, however, they would follow the example of transport helicopter pilots. That is to say, they would use covert routes of approach where possible, taking advantage of every configuration of cover and concealment offered by the terrain, and relying generally on their speed and maneuverability to avoid enemy detection and fire. Under some conditions, certainly, particularly when air superiority has been clearly established, it would be entirely feasible for a rotorcycle pilot to cruise at relatively high altitude, out of effective range of enemy small arms fire, and

still maintain surveillance over an enemy force below.

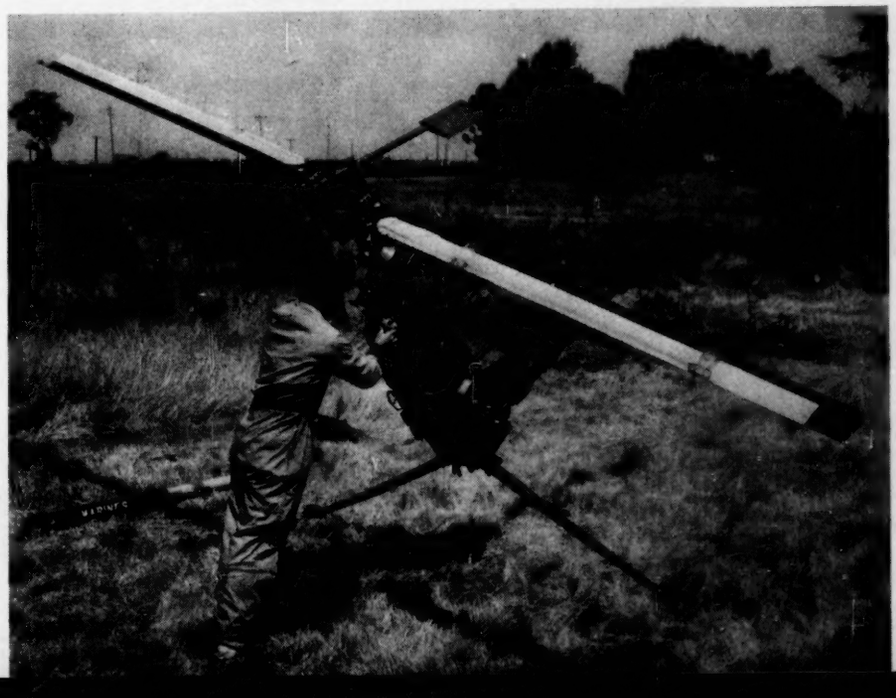
This, then, is a broadly roughed out, generalized concept for the tactical employment of the 1-man helicopter as a reconnaissance vehicle. We cherish no illusions that it is an air-tight, iron-clad, infallible concept which requires no further refinement or modification. It is advanced only to suggest a broad theoretical basis for capitalizing on the potentialities of the rotorcycle as a means for providing the infantry battalion commander with the Intelligence information he needs to fight effectively, while at the same time permitting him to retain a maximum degree of unit tactical integrity.

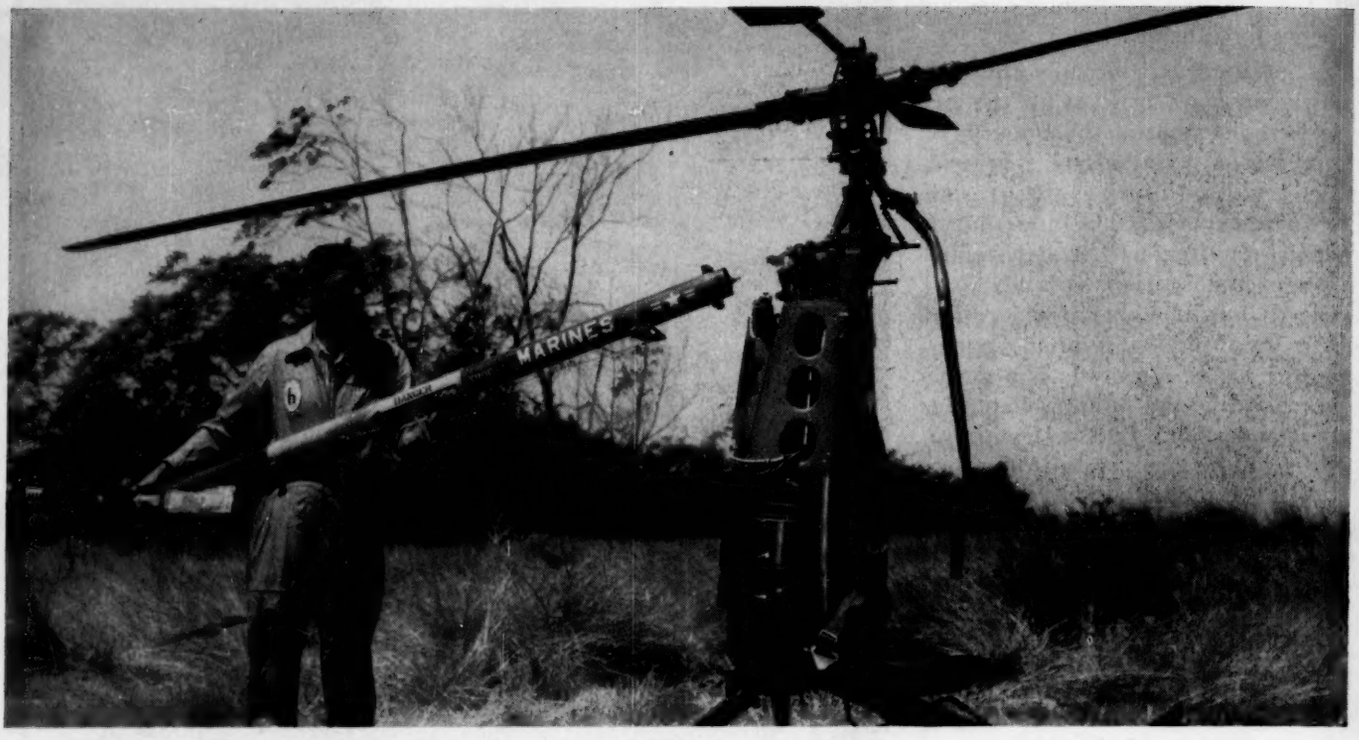
But no battlefield concept is any better than the hardware which is available to implement it. So what about the 1-man helicopter? Are we discussing a machine which is still on the drawing board? Can we get right down to nuts and bolts for the FMF?

It may be later than you think.

Actually, there are now 1-man helicopters of more than 20 different types in varying stages of research, development and production. At least 6 manufacturers have developed experimental models which have tested out sufficiently well to warrant the assumption that they could go into mass production on relatively short notice. Of these, 2 show the greatest promise at present for measuring up to FMF requirements—the Gyrodyne XRON-1 and the Hiller XROE-1.

As the reader may recall, the Gyrodyne and the Hiller were co-winners of a Navy Bureau of Aeronautics design competition conducted in 1954 to stimulate development of a simple, compact, lightweight 1-man helicopter for use by the Marine Corps. Because they were designed in accordance with the same criteria, the XRON-1 and the XROE-1 have a number of basic attributes in common. Both are light, small and highly portable; both can land or take off almost anywhere; both have a high degree of inherent stability and are easy to fly in comparison with larger aircraft; both can be air-dropped; and both can be equipped with an electronic "black box" stabilizer or automatic pilot which will help free the operator





XROE-1

for observation or other duties.

And the Gyrodyne and Hiller 'copters have just moved another long step toward Navy-Marine Corps acceptance. Under terms of recent BuAer contracts with the manufacturers (Gyrodyne Company of America, St. James, L.I., N.Y., and Hiller Helicopters, Palo Alto, Calif.), the Navy soon will get 5 Gyrodyne XRON-1's and 5 Hiller XROE-1's. Upon completion of preliminary flight tests conducted by the Navy, 3 of the Gyrodynes and 3 of the Hillers will be turned over to the Marine Corps Landing Force Development Center at Quantico for evaluation. The Gyrodyne is scheduled for delivery at Quantico in June 1959, the Hiller in December 1959.

The big question at the moment, therefore, is whether it is tactically and mechanically feasible to employ the Gyrodyne and Hiller helicopters in the various combat roles for which they have theoretical usefulness. Obviously, the initial answer to this question must await the outcome of the Quantico evaluation, but in order to provide the reader with a basis for some tentative conclusions of his own, here is a rundown listing prime characteristics and performance data on both the XROE-1 and XRON-1, as specified by the manufacturers:

Hiller — The XROE-1 rotorcycle utilizes a conventional single-rotor and tail-rotor configuration and is powered by a 40 hp, 2-cycle, 4-cylinder Nelson engine. Empty weight of the craft is 270 pounds. Its design gross weight is 526 pounds, including 180-pound pilot, 60-pound pack, and 16 pounds of fuel. At full gross weight, the XROE-1 is capable of a vertical rate of climb of 330 feet per minute and a maximum rate of climb of 600 feet per minute. Service ceiling is about 12,500 feet. Maximum speed of the XROE-1 is 70 mph and its cruise speed is 52 mph. Range with present fuel capacity (which can be increased somewhat) is 27 miles. Rotor diameter is 18 feet 6 inches.

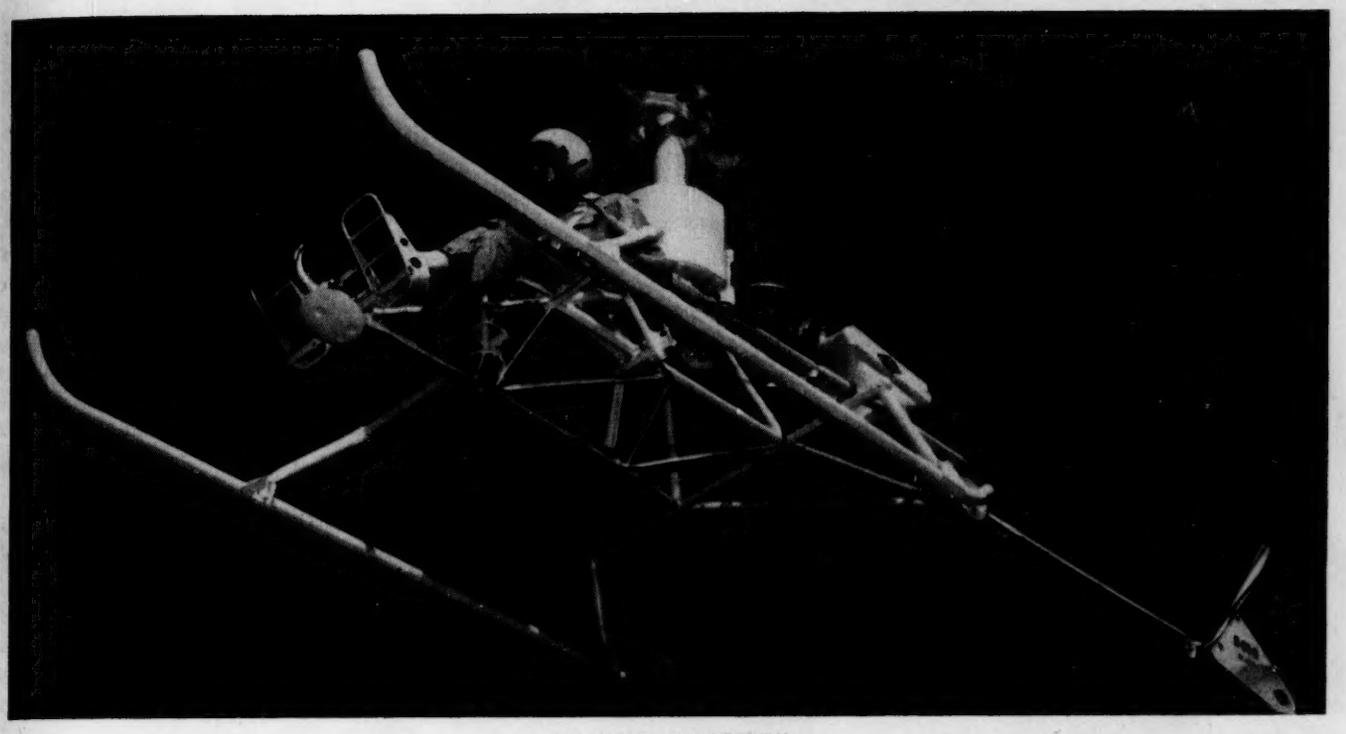
A unique feature of the XROE-1 —and an extremely attractive one from a Marine Corps point of view —is its "foldability." By removing quick-disconnect pins, the pilot can disassemble and fold the vehicle into a package only 14 feet long by 27 inches in diameter. Reassembly takes only 10 minutes. A single 6x6 truck could carry as many as 15 XROE-1's.

According to Hiller engineers, the XROE-1 is "extremely stable" and easy to fly as a result of a special rotor control system that achieves almost complete elimination of cyclic control forces.

Gyrodyne — The XRON-1 has twin counter-rotating rotors and is powered by a 60 hp, 4-cycle, 4 cylinder Porsche engine manufactured in Stuttgart, Germany. The craft's empty weight is 381 pounds. Its design gross weight is 690 pounds, including 180-pound pilot, 60-pound pack, and 69 pounds of fuel, oil, and miscellaneous optional equipment. The XRON-1 has a cruise speed of 52 mph, a maximum speed of 72 mph, and a service ceiling of about 13,000 feet. Rotor diameter is 17 feet. Not including rotors, the Gyrodyne is 8 feet high, 10 feet 5 inches long, and 3 feet 11 inches wide. Because of its counter-rotating props, the XRON-1 has an excellent hovering capacity. At full design gross weight, it is capable of a vertical rate climb of 300 feet per minute and a considerably higher maximum rate of climb. Range with present 25-pound fuel capacity (which can be increased) is about 40 miles.

Although the Gyrodyne is not foldable like the Hiller, it can be easily disassembled. Two men can make an engine change in less than 30 minutes. Transmission and mast assembly can be detached or attached in a few minutes simply by removing or replacing 4 bolts.

The XRON-1's coaxial rotor system, Gyrodyne engineers say, is particularly adaptable to a small ma-



GA-400R "GIZMO"

chine designed to be flown by pilots with a minimum of flight training. Small rotor-tip-mounted drag brakes are said to give the craft exceptional stability and directional control.

It would be premature, of course, to venture an opinion as to which of the two helicopters is superior, the Gyrodyne or the Hiller, and this article will undertake no such evaluation. Based on announced design characteristics and performance data, however, it appears that both machines are capable of meeting minimum Marine Corps requirements, with the Hiller having the edge in transportability and the Gyrodyne on top in overall performance per payload.

And even if the Gyrodyne and Hiller helicopters should fail to "cut the mustard" in the Quantico tests, this will not automatically rule out possible Marine Corps adoption of improved models at a later date. As in other fields of aircraft research and development, 1-man helicopter manufacturers are continuously evolving newer and better products, and it is unquestionably only a matter of time until the industry will be turning out 'copters which are vastly superior to those flying today. Now in the development stage, for example, is a new 40-pound, 80 hp gas turbine engine which is expected to revolutionize 1-man helicopter performance. Another development which will bear watching is a Goodyear helicopter with a rubberized airframe that can be inflated for use and deflated for convenient stowage or transportation.

Thus far, we've discussed the 1-man helicopter primarily in terms of its value for reconnaissance and battlefield surveillance, but one of the prime virtues of the rotorcycle, from an FMF standpoint, is its apparent capacity for performing a wide variety of other combat functions as well. In addition to reconnaissance, for example, the 1-man helicopter could be used for:

Liaison and courier service
Artillery observation
Wire laying
Light re-supply of critical items
Pilot or scout recovery (by air-dropping 'copter)
Emergency transportation of small numbers of combat troops into critical areas
Delivery ashore of reconnaissance personnel from submarines or surface craft
Aerial photography with 'copter under remote control

TV transmission of reconnaissance information with 'copter under remote control.

This list by no means covers the full spectrum of possible uses, but it is sufficiently inclusive to indicate that the 1-man helicopter is potentially a versatile machine which does not fall readily into that "nice to have" category of equipment having a specialized role in combat. It is significant, too, that the first 6 of the 9 functions mentioned above have become increasingly difficult to accomplish with existing equipment under the Corps' new tactical doctrine, while the remaining functions have not yet been seriously attempted.

If the Marine Corps should decide to adopt the 1-man helicopter, it is to be expected that there will be honest differences of opinion as to precisely how it should be integrated into the FMF structure. Aviation personnel, no doubt, will be inclined to view the rotorcycle as "just another airplane" and ground personnel will be equally prone to look at it as an "air motorcycle." Actually, it is both and must be so regarded if the proper end result is to be achieved.

As we see it, however, it will be entirely impractical to establish 1-man helicopter squadrons at the wing level for division support, because virtually all of the combat roles for which the rotorcycle can be used are primary functions of the Marine division. Nor would it make sense either, it seems to us, to organize a 1-man helicopter squadron within the division, any more than it would make sense to establish, say, a "mechanical mule company" which would have cognizance over all such vehicles in the division and their drivers.

Reduced to its simplest terms, the problem of integrating the rotorcycle into the FMF is only a matter of devising a workable procedure for insuring that 'copters and operators are made available to the commanders and staff officers who need them — when they need them. No one could quarrel with any solution which achieved that end. Our guess is, though, that the only practical way to do it will be found to be organic assignment of 1-man helicopters in appropriate numbers to those

commands within the division which have a requirement for them — to include, of course, all regimental headquarters (infantry and artillery), all battalions organic to regiments, and all separate battalions.

Another problem involved in possible Marine Corps adoption of the 1-man helicopter is that of pilot procurement and training. The question that must be disposed of first, of course, is whether or not rotorcycles should be piloted by naval aviators. The answer obviously is that they should not, for the simple reason that the rank, technical training, experience, and other qualifications of naval aviators are far in excess of what is required for flying a relatively simple, low performance aircraft like the 1-man helicopter. To use a qualified naval aviator to fly a machine powered by a 40 hp outboard motor is very nearly a ridiculous proposition on the face of it, and manifestly would represent an unacceptable waste of manpower and money.

Further bearing on the problem is the fact that Marine Corps rotorcycle operators must be trained not only as pilots but in other specialized skills as well. In reconnaissance work, for example, a 1-man helicopter pilot would be virtually useless if he were not also a trained observer and familiar with basic Intelligence procedures.

Where, then, should 1-man helicopter pilots come from and how should they be trained?

There appears to be only one practical solution. Marine Corps rotorcycle operators must come from the ranks of our young NCOs and they must be trained in a special school whose curriculum would include, in addition to flight training, such other subjects as maintenance, communications, basic Intelligence procedures, aerial reconnaissance, artillery observation, and scouting and patrolling.

Such a school would not be particularly difficult to establish, as we envision it, and probably would function best under aviation control (at Cherry Point or El Toro, for example), with experienced officer helicopter pilots, appropriate ground officers, and manufacturer's representatives serving as instructors.

It is a foregone conclusion that there would be no shortage of NCO volunteers for 1-man helicopter training, and it appears equally certain that no difficulty would be met in obtaining applicants with the requisite qualifications.

To summarize, then, this article arrives at 4 principal conclusions:

1) That there is a requirement for 1-man helicopters in the FMF, primarily for infantry battalion reconnaissance but also for a variety of other roles in the communications and transportation field.

2) That the present "state of the art" of 1-man helicopter development is sufficiently advanced to provide 'copters which are adequate to meet minimum Marine Corps requirements, but that the future is certain to bring improved models which will have even greater usefulness for the FMF.

3) That the best way to integrate the 1-man helicopter into the FMF is organic assignment of rotorcycles to component commands within the Marine division and Force Troops.

4) That Marine Corps 1-man helicopters should be piloted by NCOs trained in a special school specifically for the various tasks they will be called upon to perform.

Perhaps the reader will agree with these conclusions. Perhaps not.

If not, though, do we hear a better solution for the infantry battalion's reconnaissance problem? Do we hear a better solution for overcoming the deficiencies of surface transportation in linking together widely separated ground combat units under conditions in which the enemy may be occupying the intervening areas? Do we hear a better solution for providing the infantry battalion commander with a means for controlling by observation and fire those wide open spaces around his position which he cannot control physically?

These are important questions, make no mistake about it, and unless somebody's got some better answers, we say this: let's put 1-man helicopters in the Marine division.

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LEADER of the IRON MEN

Capt Mark H. Jordan, CEC, USN

GEN JOHN GIBBON

"He soon manifested superior qualities as a brigade commander. Thoroughly educated in the military profession, he had also high personal qualifications to exercise command. He was anxious that his brigade should excel in every way, and while he was an exacting disciplinarian he had the good sense to recognize merit where it existed. His administration of the command left a lasting impression for good upon the character and military tone of the brigade, and his splendid personal bravery upon the field of battle was an inspiration. . . . Beyond a doubt, it was this preparation that brought the brigade to its high standard of efficiency for battle service."

So wrote a volunteer officer of his Civil War commander, John Gibbon. As a summation of the essence of leadership, these words are as valid today as in the period of which they were written, 95 years ago.

The volunteers who comprised almost 100 per cent of our Civil War armies were wont to express disdain for Regular officers and their "arbitrary" methods. Scorn for spit-and-polish and for the formalities of discipline were particularly characteristic of the Middle Western troops, imbued with the traditional informality and independence of the frontiersman. John Gibbon, a hard-bitten Regular if ever there was one, took 4 Western regiments, gave them Regular Army discipline and made them like it, and molded them into one of the finest fighting units the United States Army has ever seen.

How did he do it? A look at his methods is illuminating. His secret was no secret at all—merely the application of tried and unchanging principles of leadership, as good today as they were in 1862, when he practiced them with surpassing skill. Napoleon once said "In war. . . . The Man is everything." For the Western Brigade, The Man was John Gibbon.

The first contact between The Man and his men took place in the fall of 1861, when, in the organization of the Army of the Potomac, 3 Wisconsin regiments and one from Indiana were grouped into King's Brigade, McDowell's Division. At that time Capt Gibbon, Battery B, Fourth US Artillery, chief of artillery for Gen Irvin McDowell, combed through the division's infantry regiments, seeking volunteers to bring his shorthanded battery up to strength, and was impressed with the potentialities of the western soldiers. The following spring, under

the reorganization dictated by Lincoln in March 1862, McDowell became a corps commander and King moved up to the division. Gibbon, a North Carolinian who had stayed with the "old flag," made the leap in one bound from captain to brigadier, (after a delay in confirmation which he says was due to his not having a Senator from his home state to sponsor him!) Early in May, at Fredericksburg, Virginia, BGen John Gibbon, West Point '47, author of the "Artillerist's Manual," soldier par excellence, assumed command of the Third Brigade, King's Division, Department of the Rappahannock.

It is safe to say that the change from King to Gibbon came as a jolt to the troops. Rufus King, a West Pointer himself (1833), had been out of the regular service for a quarter-century, and must have acquired a thoroughly volunteer point of view. To the exacting professional eye of John Gibbon it was clear that his new command, composed though it was of first class material, stood in need of discipline and drill. Discipline and drill was what it got.

The new general's first thought was to the equipping of his troops. Shortly after his assumption of command the brigade was ordered to draw a full kit of uniforms, and wear them—including white gloves, white leggings, and regulation black felt campaign hats. The campaign hat was popular in the Union armies of the west, but in the Army of the Potomac the standard covering was the pillbox forage cap, and the black hat was unusual, to say the least. Leggings and overcoats were regarded in the ranks as useless encumbrages, and as for white gloves—well! These reforms were greeted by the volunteers with a reaction typical of the American frontiersman. A few days later, the brigade, on turning out for reveille, was convulsed by the sight of the general's horse at his tether—clad in white leggings.

Nevertheless, sharpening up the uniform began shortly to produce a grudging pride in the brigade. Three weeks after Gibbon had taken over, Shields' Division, back from hard campaigning against Jackson in the Shenandoah Valley, joined McDowell's Corps at Fredericksburg. Shields' troops christened Gibbon's men "the bandbox brigade," and a Wisconsin diarist noted the counter-gibe: "We would rather wear leggings than be lousy," with an aside to the effect that Shields' forces were "the dirtiest ragamuffins we have yet seen in the service." The brigadier's measures were already having their subtle effect.

Gibbon's reform on reveille was somewhat more popular in the ranks. He soon discovered that the ceremony was a farce which none of the officers attended. His cure for this was characteristic: reveille became a formal assembly under arms, at which the brigadier and his staff galloped through the camp and verified the proper formation of each regiment before dismissing it. Gibbon records in his memoirs the glee of the privates that the officers now had to turn out like the men.

Guard duty was a subject which naturally drew its share of attention. In the peaceful atmosphere of camp at Fredericksburg, Gibbon insisted, for purposes of training, that security measures be taken exactly as they would be in the presence of the enemy. One of his greatest difficulties was in indoctrinating sentries; the volunteers, accustomed to hard work in civil life, could see no point in walking post apparently doing nothing. (The only case in which he resorted to summary punishment in this command involved a sentry who was just too indifferent to present arms when the brigade commander came on his post.)

The appearance of the guard was also a source of concern. Pacing down the blue-clad ranks one morning at brigade guard-mount, which he had just instituted, Gibbon was dismayed at their seediness. The few individuals who approached his standard for the well-turned-out sentry were promptly rewarded with relief from the guard and 24-hour passes. The blackberries were ripe in the neighboring fields, and a chance to get out of camp to go berrying was highly prized. The word swept like wildfire through the brigade that the general knew how to reward as well as punish; Gibbon found a "marvellous change" in the standards of appearance next morning; and a 24-hour pass for the 3 neatest men at guard-mount became SOP.

The virtues of unit competition Gibbon knew well. While still captain of Battery B, he utilized sec-

tional feeling to stimulate a healthy rivalry within the battery. After he had recruited it to strength by drawing 150 volunteers from the infantry regiments of the division, Gibbon reorganized the battery to give each piece to a different state, labeled it with a small National color bearing the state's name, and instilled in the minds of his new gunners the belief that the honor of their states rested on their guns. In the brigade, reveille became a race between regiments to see which could turn out the fastest. At drill the competition was keenest between the Second and Sixth Wisconsin—the one commanded by a West Pointer, Edgar O'Connor of the Class of '54, the other by a natural leader of great energy, Lysander Cutler, who rose to command a brigade at Gettysburg and a division in the Wilderness. John Gibbon lost no opportunity to egg on the rivalry; in fact, he was not above taking over the drilling of a regiment himself when it suited his purpose.

When it came to drilling the brigade as a unit, however, he had qualms. The pre-war Army having consisted of small scattered units, the general had never even seen a brigade drill. Eventually, a chance remark by one of his field officers came drifting back to him: "Why, Gibbon is only an artilleryman. He doesn't know any infantry drill."

Needless to say, that did it.

In a few sessions with Professor Henry Coppée's drill manual, the gunnery expert found to his pleasant surprise that infantry brigade drill was remarkably similar to light artillery maneuvers. Soon the plain where the brigade was encamped saw the 4 regiments executing brigade movements in double time. With pardonable pride, a veteran remembered 25 years after the war that the brigade in its precision and accuracy of movement was not excelled by the Corps of Cadets. (Its general, during that same post-war period, confessed that at such drills he was occasionally assisted by a sly peep at his copy of Coppée, which conveniently fitted his pocket. However, it is to be doubted that he emulated the famous Col "Extra Billy" Smith, C.S.A., who reputedly drilled his Forty-Ninth* Virginia by reading commands from the drill manual while seated on a rail fence in the shade of an umbrella!)

Long before its first battle the brigade had won fame as a crack parade-ground outfit. Irvin McDowell was wont to show its men off to foreign visitors as prize specimens of the American volunteer soldier; and Gen John Pope, in his report on Second Manassas, spoke of them as "some of the best troops in the service," implying that they had won this name for themselves prior to the campaign. Never has a drill-field reputation been better sustained under fire.

Not of Gibbon's making was one source of brigade *esprit*, its exclusive Western character. There were other Western regiments in the predominantly Eastern Army of the Potomac, but they were dispersed—there was only one exclusively Western Brigade. A Sixth Wisconsin veteran, speaking at a brigade reunion in 1890, ascribed their morale to sectional pride: "We were the only Western soldiers in the entire army, and we would have died rather than have dishonored the West." Strong words, these—but a strong motive it must have been which, when the firing started at Groveton, impelled 3 sick Wisconsin men to abandon the comparative safety of the Sixth Wisconsin regimental ambulance in order to get in on the fight!

But, if Gibbon did not create it, he nevertheless recognized the homogeneous character of the Western Brigade for the asset it was. When battle losses had reduced his command to the point where replacement of lost manpower was essential, he specified, and was promised, that the reinforcement should be a Western regiment.

This regiment, the newly-raised Twenty-Fourth Michigan, received a chilly reception when it joined the veteran brigade in camp on the recent battlefield of Antietam. The hardened soldiers of the black hat, who by then had fought 4 fierce battles in less than 3 weeks—Groveton, Second Manassas, South Mountain and Antietam—were disposed to regard the newcomers as probationers, not to be admitted to the fraternity until initiated by fire. In this difficult situation Gibbon did what he could to boost the Michiganders' morale, going out of his way to praise them to their faces as the best-drilled troops, for their experience, which he had ever seen.

For the fighting man, however, the ultimate test of leadership comes on the field of battle. The assessment of Gibbon in this respect by Rufus Dawes, major and later colonel of the Sixth Wisconsin, has already been quoted. Gibbon's battle wounds at Fredericksburg, where he led a division in the assault on the Confederate right, and Gettysburg, where his division and the II Corps, which he temporarily commanded, broke Pickett's charge, are evidence that he was usually found where the fighting was hottest. Further testimony in this regard comes from Dawes again, in his account of the final debacle of Second Manassas:

"All the troops that had been in the woods, except the Sixth Wisconsin, had now retreated and gone to the rear. BGen John Gibbon, be it

Capt Jordan, CEC, USN, was commissioned in June 1937 upon graduation from the Naval Academy. In 1942 he received a master's degree in civil engineering from Rensselaer Polytechnic Institute, and subsequently served as ExO of the 6th Seabee Bn during the capture and defense of Guadalcanal. He commanded this unit from Nov '43 to Nov '44, and in 1951-'52 commanded the 103d Seabee Bn on Guam. The Capt is currently serving with BUDOCKS in Washington, D. C.

ever remembered to his honor, remained with our regiment. He said he had received no orders to retreat and he should stay until he got them."

So much for Gibbon's methods. For his results, it is necessary to look no farther than to the baptism of fire of the Black Hat Brigade.

On a hot summer afternoon in 1862—August 28, eve of the Second Battle of Manassas—Stonewall Jackson lay in ambush with his corps, overlooking the Warrenton-Alexandria turnpike a couple of miles east of the crossroads hamlet of Gainesville, Virginia. When King's Division marched unsuspectingly across his front, the eager Confederate fell upon its flank with zest. A cannonade from 3 Virginia batteries gave the first notice to the Federals of the presence of rebels. As the first shells burst over the road, the leading brigade, which was already clear of the line of fire, (but well within sound of the guns), continued to march. The Third Brigade took shelter in a highway cut while its brigadier waited for orders. The Second Brigade—Gibbon's—called up its attached artillery (Gibbon's old battery), opened vigorous and effective counterbattery fire, and shook out a regiment for a flank attack on the enemy guns. This regiment, the Second Wisconsin, shortly found itself embroiled in close infantry combat with the entire Confederate division of William B. Taliaferro. Gibbon promptly threw in the rest of his troops and sent for reinforcements; eventually 2 regiments from an adjacent Federal brigade got into line with the Westerners; on the Southern side, Jackson sent Ewell's Division forward to support Taliaferro; and a savage battle ensued.

This action, called by the Northerners "Gainesville" and by the Southerners "Groveton," (after a nearby crossroad), resolved itself into a furious fire fight. Twenty-eight hundred Federals faced 4500 or more Confederates at an average range of 75 yards. Neither side could advance and neither would give way. After knock-down, drag-out fighting had lasted for an hour and a half or more, darkness put an end to the firing. Each side had lost more than 30 per cent of the force engaged. Gibbon's command, heavily outnumbered but still defiant, withdrew slowly to the turnpike; the Rebels, with no stomach for pursuit, held the ground on which they stood.

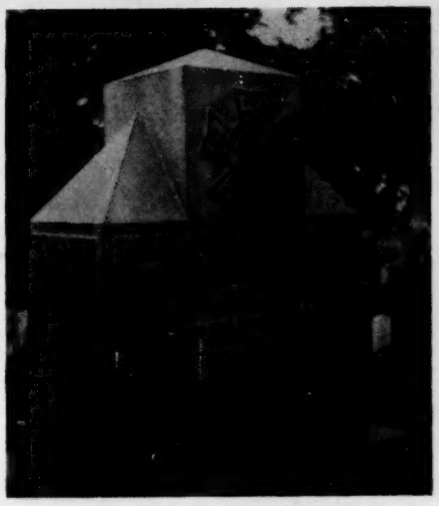
The Southerners had an edge in numbers of about 5 to 3; they enjoyed the advantage of surprise, and the choice of ground; they were seasoned veterans of hard campaigning, some of the finest troops in the Gray ranks. Except for one regiment, the Union soldiers had never before fired a shot in anger. All authorities agree that the fight was a draw, and that the honors were clearly carried off by the Western Brigade.

This was a fight to make any commander proud, and John Gibbon was not the leader to stifle his pride in his men. In point of fact, Gibbon's pride in his men sticks out all over the record. His first official report of Groveton, written within a week of the battle, is duly modest. However, he felt that Pope's report, subsequently published, slighted the brigade by crediting the Groveton fight to "King's Division," the major portion of which, despite his calls for support, had taken no part. Promptly he wrote a second report, over a year after the battle, setting forth more vigorously the claim of his men for the credit, "as an act of justice to my command." His memoirs, too, although recording the initial need of the brigade for discipline and drill, emphasize at the same time the high character of his raw material, and go on to relate that his expectations were more than realized.

Thus his troops appeared to Gibbon. How did Gibbon appear to his troops?

The incident of the horse and leggings is, no doubt, a fair index of their initial reaction. An enlisted man in the Michigan Regiment, which of course joined after Gibbon's efforts had welded the brigade into a superb fighting team, and shortly before he left for division command, gave a later opinion, writing him down as "a thorough soldier by education and practice." The view of Rufus Dawes has already been quoted. The final word on Gibbon as seen by his men belongs to the veteran who credited their success to Western pride:

"We became so attached to him that we loved him, and after his death the surviving members of the brigade contributed a fund and built a monument of Wisconsin granite



and placed it on his grave at Arlington Cemetery—the only case in the world where a volunteer soldiery have themselves built a monument to a regular army officer."

Such a man was John Gibbon, leader—a man who had high professional skill, and sought to increase it; who established high standards, and enforced them; who manifested pride in his command, and gave credit where it was due; who punished when necessary, but knew and followed the principle that men respond more readily to reward and praise; who respected his men and earned their respect in return; who gave his troops a badge to distinguish them from the common herd (ever after Groveton, the appearance of that black hat on the field of battle signalled the arrival of the first team); who harnessed the spirit of rivalry natural in men, and the power of regional pride; and who, above all, led by example both on and off the battlefield.

Gibbon went on to command a division, and eventually a corps. In addition to promotion, his was the true reward of the leader—the peerless performance in battle of the men whom he had trained and led. His brigade became famous as the hardest fighters in the Army of the Potomac. For a short time they called themselves the Black Brigade, after the badge which he had given them. Soon, however, this title gave way to the name by which they became known throughout the Army, and have been known ever since. John Gibbon's most fitting monument is this unit name, with which his is forever coupled — *The Iron Brigade.* USMC

FMF

LtGen Edwin A. Pollo

Aide to CG

Maj William G. Joslyn

Col Joe Mc

Staff Secretary

Maj Clark V. Judge

Col Herber H. W

G-1

Col Sidney M. Kelly

G-2

Col Charles M. DeHority

Col Samue V. Sn

Force Chaplain

Capt Walter A. Mahler USN

Commanding Officer H&S Bn

Col Charles M. Nees

Capt Willi T. H

Commanding General 2d Marine Division

MajGen Joseph C. Burger

Assistant Division Commander

BGen Sidney S. Wade

Commanding General Force Troops

BGen Leonard F. Chapman

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Commanding General FMFLant

Commanding General Air FMFLant

MajGen Marion L. Dawson

Chief of Staff

Col Michael Sampas

Chief of Staff

McHaney

Deputy Chief of Staff

H. Williamson

Comptroller

W. Smith, Jr.

G-3

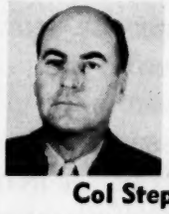
Col Joseph L. Stewart

G-4

Col Harold C. Boehm

Force Medical Officer

T. Hall USN



Force Inspector

Col Stephen V. Sabol

Dental Officer

Capt Joseph L. Parker USN

Chief of Staff Force Troops

Col P. R. Colmer

Commanding General 2d Marine Aircraft Wing

MajGen Arthur F. Binney

Deputy Wing Commander

BGen Frank C. Tharin

(s available on request)

FLEET MARINE F

COMMANDING GENERAL .....
DEPUTY COMMANDER .....
CHIEF OF STAFF .....
DEPUTY CHIEF OF STAFF .....

HEADQUARTERS AN SERV
Commanding Officer .....

SECOND MARINE DIVISION

COMMANDING GENERAL	MajGen J. C. Burger
ASST. DIVISION COMMANDER	BGen S. S. Wade
CHIEF OF STAFF	Col C. A. Youngdale

HEADQUARTERS BATTALION	LtCol A. J. Cronin
2D MARINES	Col C. R. Baker
1ST BATTALION	LtCol J. A. Apffel
2D BATTALION	LtCol H. F. Woodbury
3D BATTALION	LtCol T. S. Witherspoon
6TH MARINES	Col W. J. McKennan
1ST BATTALION	LtCol J. R. Stockman
2D BATTALION	LtCol W. E. Antley, Jr.
3D BATTALION	LtCol R. M. Jenkins
8TH MARINES	Col G. W. Killen
1ST BATTALION	LtCol W. S. Bartley
2D BATTALION	LtCol A. A. Tillmann
3D BATTALION	LtCol J. F. Paul
10TH MARINES	Col F. J. Karch
1ST BATTALION	LtCol E. E. Allen
2D BATTALION	LtCol G. N. Powell
3D BATTALION	LtCol R. S. Wilson
4TH BATTALION	LtCol G. W. Carrington, Jr.
2D PIONEER BN	LtCol H. R. Gingher
2D ANTI-TANK BN	LtCol R. Krippner
2D MEDICAL BN	Capt M. G. Stutz, USN
2D SERVICE BN	Col K. E. Martin
2D MOTOR TRANSPORT BN	LtCol J. E. Sundholm
2D RECONNAISSANCE BN	LtCol E. Kirby-Smith

FORCTRO

COMMANDING GENERAL .....
CHIEF OF STAFF .....

HEADQUARTERS COMPANY .....
2D ANGLICO .....
2D AMPHTRABN .....
2D FORCE RECON CO .....
8TH ENGINEER BN .....
8TH MOTOR TRANSPORT BN .....
2D TANK BN .....
8TH COMMUNICATION BN .....
2D FIELD ARTY GRP .....
2D PROVMARAGGRESSOR CO .....
2D HOSPITAL CO .....
2D TOPOGRAPHIC CO .....
2D RADIO CO .....
2D BRIDGE CO .....
2D SEPSURG CO .....
2D COUNTER INTELL TEAM ..... Ca
FMFLant COMPOSITE INTERROGATOR-TRANSLATOR TEAM .....

In an effort to provide material which will interest our readers, the MARIN CORPS positive interest in the Fleet Marine Force, and it has been suggested that t GAZE Force. In this issue of the GAZETTE we are initiating publication of such list, be We are particularly interested in receiving reader reaction to this feature, a that re

NE FORCE ATLANTIC

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COL J. C. McHANEY
COL H. H. WILLIAMSON

RS AN SERVICE BATTALION
Col C. M. Nees

HEADQUARTERS, AIR FMFLant

COMMANDING GENERAL — MajGen M. L. Dawson
CHIEF OF STAFF — Col M. Sampas
H&HS — Maj R. B. Heilman

FORC TROOPS

BGen L. F. Chapman
Col P. R. Colmer

SECOND MARINE AIRCRAFT WING

COMMANDING GENERAL — MajGen A. F. Binney
ASSISTANT COMMANDER — BGen F. C. Tharin
CHIEF OF STAFF — Col L. B. Robertshaw

Maj V. E. Wade
LtCol K. M. Ford
LtCol B. G. Thobe
Capt J. Z. Taylor
LtCol R. D. Wright
LtCol H. R. Thorpe
LtCol L. J. Parnell
LtCol H. H. Hawkins
Col D. S. Pregnall
1stLt B. R. Hampton
Capt R. M. McComas
Capt R. J. Curreri
Maj F. P. Wilson
Capt H. E. Perea
HMC R. Parmer, Jr.
Capt H. R. Marshall, III

OR-

Maj J. R. Hansen

MWHG — Col A. H. Anderson
H&HS — Maj R. A. Andres
VMCJ-2 — LtCol F. C. Thomas
MASS-1 — LtCol T. J. Horner
MACS-6 — LtCol A. F. O'Keefe
MACS-7 — Maj I. J. Barney
VMT-1 — LtCol P. C. DeLong
MWSG-27 — Col R. J. Morell, Jr.
H&HS-27 — Maj J. G. McAllister
MABS-27 — LtCol R. L. Young
MARS-27 — LtCol C. M. Longley
MAG-14 — Col J. R. Little
MARHAMRON-14 — LtCol W. A. Free
MABS-14 — Maj J. E. Barnett
VMA-225 — LtCol A. R. Boag
MAG-24 — Col H. G. Hutchinson
MARHAMRON-24 — Maj H. D. Menzies
MABS-24 — LtCol P. F. Avant, Jr.
VMF(AW)114 — Maj M. Jones
VMF(N)531 — LtCol H. W. Hise
VMA-533 — LtCol C. H. Davis
VMA-324 — Maj J. M. Burris
VMA-332 — LtCol J. B. Maas, Jr.

MAG(HR)(L)-26 — Col K. B. McCutcheon
MARHAMRON-26 — Maj F. W. Earnest
MABS-26 — Maj A. C. Sims
HMR(L)-261 — Maj E. K. Griswold
HMR(L)-262 — LtCol J. R. Dyer
HMR(C)-263 — LtCol A. C. Hendley
HMR(M)-461 — Maj W. R. Rozier
VMO-1 — LtCol F. A. Steele
MAG-31 — LtCol F. F. Rooter
MARHAMRON-31 — Capt R. S. Villareal
MABS-31 — LtCol F. F. Rooter
MAG-32 — Col H. M. Elwood
MARHAMRON-32 — Maj J. J. Tooley
MABS-32 — LtCol R. F. Conley
VMF-122 — LtCol W. H. Rankin
VMF-312 — LtCol L. R. Smunk
VMF-235 — LtCol J. C. Scott
VMF-333 — LtCol J. H. Scherer
MACS-5 — LtCol H. E. Allen
MACS-8 — Maj E. R. Agnew, Jr.
MAG-35 — Col C. W. Somers, Jr.
MARHAMRON-35 — Maj B. J. Costello
VMR-153 — LtCol C. W. Korf
VMR-252 — LtCol W. W. Turner
VMR-353 — LtCol W. E. Baird

ARIN CORPS GAZETTE is constantly looking for new ideas. There is always a that t GAZETTE undertake periodic publication of Command Lists of the Fleet Marine such list, beginning with Fleet Marine Force, Atlantic (as of 13 February 1959). re, a that reaction will in part determine whether it will be continued.

THE WEAK LINK

By Maj Charles W. Blyth

WITH THE ADVENT OF NUCLEAR warfare, the time-space factor takes on a new significance. Supersonic aircraft and guided missiles have greatly diminished the element of time; on the other hand, three-dimensional movements of troops and separation concepts of deployment conversely increased the element of space. This, in turn, has caused the exercise of command and control to be extended to hitherto unimaginable limits.

If nuclear weapons, supersonic aircraft and masses of mortal men, are to be employed and deployed effectively in the complexities of triphibious landings, the exercise of command and control must be positive, rapid and decisive. The tool of our trade which extends command, ensures control and effects coordination, is communications. New tactics and techniques are being developed to adapt our forces to nuclear warfare; we are forging a great new chain in the bastions of our national defense. Communications is one of the separate links in this chain.

Our minds have become geared to the tactics of tomorrow, but incongruently, geared to the communications of yesterday. We continue to plod along with communication equipment of Korean War vintage, procedures devised for WWII, and attitudes which antedate the Haiti-Nicaragua campaigns. These attitudes—the unwillingness of individuals to learn the operational rudiments of communications, the reluctance of commanders to accept the command responsibility for communication failure, and the complacency of the policy makers and planners in permitting our communication system to deteriorate—these attitudes are making communications the weak link.

Within the grasp of our nation's research engineers and its great industrial capacity are the communication devices of tomorrow, although communications research and development frequently seem to be lagging behind nuclear weapon and guided missile development. New design will stimulate improvement in communication procedures to a certain extent, but the most pertinent changes will be dependent upon the fertile imaginations of those who employ them. Attitudes are the catalyst which will accelerate improvements in both categories. Only when those who employ military communications become sufficiently communications conscious to accept their responsibility towards it, will we enjoy a communication system which will be compatible with the newer concepts of warfare.

Staff manuals, naval warfare publications and other doctrinal media, emphasize that communications is a command responsibility, but they do not limit the term "command" to organizations with executive or special staffs. Communications is the responsibility of every individual leader within an organization. Naturally, this responsibility is appropriate to the level of the command, but younger officers must remember, as embryonic battalion and regimental commanders, they cannot be satisfied to learn only enough to satisfy their current and immediate command or staff requirements. The communication system becomes more complex with each higher level of command, from the simple shout of the fire team leader to the emission of electromagnetic radiations on multi-channel devices for the commands of the division commander. Communications is the means by which the coordination of a single staff is effected; it is the means by

which the varied levels of command, arms and combat forces, are coordinated, commanded and controlled. If the coordination, command and control of our forces in nuclear combat are to be positive, rapid and decisive, the necessity has arisen whereby all levels of command must eliminate the current attitudes towards communications. It has become a matter of self-preservation to strengthen the weak link.

To the individual—both commissioned and enlisted—the word communications is immediately and often erroneously associated with electronics. Both words, communications and electronics, tend to promote an air of mystery or an aura of fear. Like all fears, it is essentially a fear of the unknown. Unfortunately, many young staff non-commissioned officers and embryonic commanders lack the curiosity to solve this pseudo mystery; there is a fearsome reluctance to extend their professional knowledge into this seemingly awesome field.

Certain phases of electronics, to be sure, are complicated, and to be well qualified in them requires many years of intensive study. Operational communications, as distinguished from electronics, does not require a background of technical studies. The rudiments of operational communications are as easy to grasp as the study of tactics; furthermore, it is an integral part of tactics now. Technicians require special training to understand the theories of electromagnetic radiations, circuitry, and the function of the many minute parts of communication equipment. However, the rudiments of operational communications, which every officer and staff non-commissioned officer should inculcate, encompasses such items as characteristics and capabilities of the equipment, methods of employment and general terminology.

If the individual can understand methods and techniques of weapons employment, he can understand operational communications. For example, every Marine understands that as muzzle velocity is increased, the trajectory of the bullet becomes flatter. Furthermore, the flat trajectory or direct fire weapon cannot be used with any degree of reliability to strike a target in defilade. In the employment of a radio, it has been determined that the higher the frequency employed, the flatter becomes its path of transmission. Instead of calling it a direct fire weapon, it is given the term "line-of-sight" operation. Like the flat trajectory weapon, the line of sight radio is unable to strike a target or transmit to another radio in defilade. When one weapon cannot perform under a given set of circumstances, another weapon must be used. When the rifle is unable to strike a target in defilade, the mortar with its capability of high trajectory indirect fire is employed. Similarly, if a company commander on the forward slope of a hill is unable to contact his parent battalion on an AN/PRC-10, which is limited to line of sight operation, he can turn to the AN/GRC-9 of his Forward Air Controller or his Naval Gunfire Spotter; this latter piece of equipment is not limited to line of sight operation and employs additional power. It is that simple.

Sometimes the occasion arises where mortars or other high trajectory weapons are not available, thereby necessitating the unit to maneuver onto terrain where their flat trajectory weapons can be brought to bear upon the target. This is also a circumstance of communication equipment; if the individual is limited to line-of-sight equipment, it then becomes necessary to install the equipment on terrain where his line-of-sight equipment can be brought to bear upon the receiving station. This can be accomplished either by remoting the equipment or moving it to high ground. Like weapons, communication equipment is subject to certain limitations, and like a weapon, it can only be employed within those limitations. Not only will the individual enjoy improved communications by learning the characteristics and capabilities of his organic communication equipment, but he will save himself needless frustration trying to make the equipment perform beyond its limitations.

Communication methods and techniques are similarly no more complicated than methods and techniques in the employment of weapons. A rifle fires its projectile in the direction of the long axis of the barrel. While a radio signal is not limited to one particular path, it has been determined that the strongest signal is emitted in a direction perpendicular to the long axis of the antenna. Therefore, when an operator positions his radio whereby the antenna is parallel to the ground, the strongest signal is going into the ground and also straight up into the atmosphere, rather like a recoilless rifle firing into the ground with its backblast being directed into the sky. Laying an AN/PRC-10 against a tree with the antenna caressing the trunk of the tree is like firing a rifle into the tree; the tree is absorbing the majority of the electromagnetic radiations and reducing the efficiency of the signal. These are but 2 common improper methods of communication equipment employment, but they are 2 important causes of poor communications. Yet lack of interest in learning the proper methods and techniques is a common attitude of the individual.

A major obstacle in the path of learning the rudiments of operational communications on the part of the individual is his reticence towards communication terminology, especially the numerical and alphabetical system of identifying the various items of equipment. If the com-

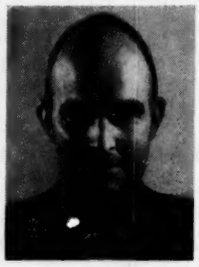
plainants were to associate themselves with this equipment a little more often, they would discover that this system is very orderly and easily understood; ultimately it saves considerable time. The rifleman would not refer to his "M-1" in normal conversation as the "US Rifle M-1, .30 caliber, semi-automatic, clip fed, gas operated, shoulder weapon." This borders on the ridiculous, but is it any more ridiculous to require a radio operator to refer to his AN/-PRC-10 as the "Army Navy Pack Radio Communication One Zero, frequency modulated, battery powered, man carried, very high frequency radio equipment." Like as not, it would only serve to confuse. Unless the person is associated with the other ensuing descriptive terms, he still would not know to what the operator is referring. If the average infantryman can understand such terminology as trajectory, maximum ordinate, muzzle velocity and the nomenclature of the rifle, there is no reason why the average staff noncommissioned officer and commissioned officer cannot understand frequency modulation as compared to amplitude modulation, high frequency as compared to very high frequency, directional as compared to omni-directional, and applicable abbreviations. It is simply a matter of attitude. If the individual assumes a preconceived notion that communications is complicated and difficult to comprehend, that is exactly what it will be. On the other hand, if he approaches it with a mature, open, and sincerely interested mind, the realm of communications and its associated mysteries will be easily mastered.

As the individual increases his stature of ability to where he can accept the responsibility of command, so should he increase his knowledge of the communication system. Instead, it seems that it has become fashionable to make communications the scapegoat for poor planning, poor coordination and poor execution. Too many staff officers use this ruse to save face with their commander. How often have we heard this statement at critiques following amphibious landings or field exercises, "It would have been a wonderful exercise, if communications had only worked." Regardless of current fashion, it remains consistent doctrine that a commanding officer may delegate authority, but he cannot delegate responsibility. Battalions and higher echelons of command include a communication officer on the special staff for the purpose of rendering advice to the commander on communication matters. The staff officer presents facts and information which bear upon the particular situation in question; he presents recommendations based on his study of these facts, but it is the commanding officer who must make the decision. Even if a staff officer makes a decision in the name of the commander, it is still the latter's responsibility. When the staff officer fails to give the commander all of the facts, if he gives him poor or incomplete recommendations, it then becomes the commander's responsibility to have the staff officer replaced. The fact still remains, the commanding officer cannot place the responsibility for inadequate communications upon a staff officer when explaining such a matter to his next superior in command.

Let us consider some of the commanders' and staff officers' attitudes which have both a direct and indirect bearing upon the successes and failures of communications within a command. Let communications fall within the perspective of nuclear combat.

Supervision is considered to be one of the most important if not *the* most important phase of troop leading. To effect certain phases of supervision, there is incorporated into almost every organizational training schedule, from the division down to the platoon, a daily rifle inspection. But where is the daily inspection of communication equipment? It is rather ironical. The rifle is a simple but rugged mechanical device, capable of projecting a lightweight missile, reasonably effectively, a distance of 500 yards, with an end result inflicting death or a wound upon one enemy soldier. The radio, on the other hand, is a complex and moderately fragile electronic device, capable of projecting the human voice and its accompanying directive or intelligence for distances varying from 500 yards to many miles, with an end result of extending the capabilities of command and control of the commander, and providing the necessary coordination of weapons to deliver warheads ranging from mortars to missiles. The rugged rifle can be dropped into the surf during an amphibious landing, and it will still continue to operate — after draining the water from the muzzle. Not so with more delicate communication equipment. Yet the average company commander will carefully inspect to ascertain that weapons are waterproofed and give no thought whatsoever to his communication equipment. Is it any wonder that his communication equipment fails to operate at peak performance? Resurgent rust or demon dust will not materially alter the operability of a rifle, whereas accumulations of dust, dirt and moisture will cause short circuits and other malfunctions in the delicate radio. It is rather tragic that following an amphibious exercise, battalion commanders publish explicit orders concerning the inspection of weapons; company and platoon commanders expertly maintain a sharp vigil for the slightest speck of inoffensive dust or dirt on all weapons within their jurisdiction and pay no attention to communication devices. The basic motivation of this weapon inspection is not being criticized, but the short-sighted attitude of neglecting communication equipment is.

The primary alibi for this neglect is that an officer, untrained in the technical aspects of communications,



Maj Blyth was commissioned in Apr 1946. He served as a tank officer in the 1st Tank Bn in Korea from Sept 1950 to Aug 1951. Subsequently he attended Communications Officers School and, from Sept 1955 to Aug 1957, served successively as CommO, 3d Bn, 7th Marines, CommO, 7th Marines, and CO, Communications Company, 1st Mar Div. His decorations include the Silver Star, Commendation Ribbon with "V" and Purple Heart. He is now with COMPHIBGRU-3.

cannot be expected to inspect communication equipment. Neither are officers trained in the technical aspects of ordnance, but they inspect rifles. No technical training is required to determine that dust or moisture is accumulating in the internal mechanisms and circuits; that the battery has been removed prior to storage; that battery residue is corroding the case; that wires are parted or insulation frayed; or that tubes are loose or broken. Communicators may like to think that all of their personnel are so dependable that such an inspection is not required, but unfortunately, this is not so. The commanders are few and far between who consider communication equipment as a weapon and inspect it accordingly, but these are the commanders who seldom complain of, or experience, communication failures.

Increased supervision by the commander will have a tremendous impact upon communications; closer association will provide him with a deeper insight as to proper employment. As each becomes more communication conscious, he will effectively employ improved methods and techniques. But here again irony raises its puzzled head.

No commander will permit his forces to be deployed beyond the limits of his organic weapons, unless he has made special provisions for the support of other supporting arms. Why should not this same consideration be given to employment of communications? Yet, under the guise of experimentation in separation during simulated nuclear combat conditions, subordinate units have been permitted to deploy beyond the limits of the commander's control by exceeding the known capabilities of the communication equipment and well beyond the minimum separation requirements. This loss of control is unforgiveable. This ineffective employment of communications is unforgiveable.

Similarly, every commander and his staff take special precautions in the planning phase of an operation to provide for flexibility of maneuver. Except under unusual circumstances, provisions are made for a reserve element, capable of exploiting a success or reinforcing against a threatened penetration. Why is it that these commanders and staff officers, so brilliant in all other phases of tactics, elect to deny this same principle to the means which provides them the capability to more positively effect command and extend control. The constant requirements for additional radio nets denies the communication officer his necessary reserve; not only does it overload the capabilities of organic equipment, but it fatigues communication personnel to the point of inefficiency, and it increases the possibility of mutual interference in an already crowded frequency spectrum. Often as not, these extra requirements are more for personal convenience rather than necessity; their purpose could be accomplished equally as well by more aggressive staff coordination.

A good example of this is the operations officer who refuses to accept Intelligence traffic over his "personal" tactical net. Functional nets are given identification closely associated with the staff section supervising it, essentially for the purpose of achieving an orderly flow of information between commands, but it must be remembered that each net serves the command, not an individual person or staff section. If a communication failure is experienced on one particular net, another net or means must be employed. The individual who limits the passage of traffic to his own staff functions, regardless of conditions, is not only a poor and uncooperative staff officer, but the overemphasis of importance of his staff section is a detriment to the command. The thoughtless establishment of additional radio nets, the reluctance to suffer the small inconvenience of using a telephone rather than radio, and the reluctance to walk a few steps to effect personal coordination, is exhausting the communication reserve element and reducing the command's flexibility in its communication system.

The commander is always aware of training, but here again the aura of mystery attached to communications causes a tendency to slight this phase of training within his command. Field exercises, being the culmination of in-garrison type training, reflect the adequacy of the latter. This is particularly true in communications. The operation and maintenance of equipment, training in the telegraphic code, communication procedures, authentication procedures, message handling etc., lend themselves to in-garrison type training. If the commander is to ensure adequate communication in the field, he must first ensure that his in-garrison training is adequate.

Currently there seems to be a shortage of experienced communication personnel, both enlisted and commissioned. Many battalions must assign inexperienced lieutenants to an experienced captain's billet. The shortage of experienced staff noncommissioned officers aggravates the

problem. Then, when the communication officer becomes burdened with collateral duties which locally require particular attention above and beyond that of communication duties, the latter is going to suffer. If the communication officer spends the majority of his time in the capacity of a Headquarters Company commander, legal officer, or special services officer, you can demand a well administered Headquarters Company, efficient legal system, or interesting special services program, but you cannot expect a reliable communication system. Although communications alone should be the full time responsibility of an officer, communications personnel ask no special favors in the assignment of collateral duties. All that is necessary is that the command weigh the objectives carefully in the light of combat conditions; if communication reliability rates a high priority and the communication officer is to be held accountable for communication training, then he must appropriately be given ample opportunity to gain experience by on-the-job training for himself and equal opportunity to supervise the enlisted training program.

Similarly, enlisted personnel must be given a communication training program with reasonable continuity. The majority of the organizational training programs reflect continuity in the schedules, but the individual is not experiencing this continuity. When communication troops are continuously employed for Headquarters Company working parties, honor guards, rifle range coaches, and the like, they receive but little training in communications, let alone the requisite continuity necessary to develop a qualified communication man. If so many commissioned officers feel that communications is difficult to comprehend, how can they expect an enlisted man to assimilate it overnight? It is neither logical nor equitable. If reliable communications is of sufficient necessity, then it becomes the necessity of the commander to ensure that his communication training program is not subject to continual interruption. Of necessity, it must be dynamic and aggressive.

The success or failure of communications has become so significant in modern tactics that it affects every member of the command. Although the commander accepts the command responsibility, self preservation dictates that every troop leader must contribute towards its success. In combat, communications cannot be made the scapegoat for poor planning or lack of coordination. It will be somewhat difficult for a commander to project his voice beyond the nuclear dust that is the grave of his decimated unit to cry, "It would have been a great victory, if communications had only worked."

The attitudes of the policy makers and planners at senior staff levels are primarily expressed by the conditions which they impose upon the commanders of the lower echelons. It is only appropriate that they accept their share of responsibility for these conditions which limit the communication capability of the commander, especially if the latter is to accept the command responsibility. Dominating criticism of these attitudes is directed at the lack of foresight in the communication training program (or lack of program) and the complacency in the administration of communication personnel assignment.

The capabilities of the individual communicator are deteriorating by the attrition of experienced personnel; the input of qualified communication personnel does not equal the loss of experienced personnel. The on-the-job training policy has deteriorated into a blind leading the blind form of instruction. Instructor potential is at a low ebb. Of the limited, experienced personnel available, there are more than enough key leadership billets to absorb their time and capabilities. Many billets are filled by personnel one to three ranks below the prescribed T/O rank. Collateral responsibilities interfere with opportunities to supervise instruction, let alone present the instruction. This leaves the on-the-job instructional responsibilities to the relatively inexperienced, too rapidly promoted, non-career minded sergeants and corporals. Not having received a reasonable foundation in communications themselves, for the most part, they have neither the capabilitity nor the inclination to present adequate instruction. Couple this with the high rate of personnel turnover and previously discussed lack of continuity in unit training programs, and it is readily apparent that such training does not develop either the quantity or quality of communication personnel demanded by amphibious landings of the past. Can we therefore accept it for the triphibious nuclear operation of the future?

To meet the requisite standards, an entire new framework of communication training must be established. This framework must integrate all phases of military education. The foundation can only be established at a formal school which will provide the embryonic communicator with the broad scope of communications as well as specializa-

tion, where continuity of instruction is assured, and where centralization of competent instructors ensures correct and standardized methods. By increasing the personnel quotas and broadening the scope of the existing schools (which are turning out excellent products), this phase could be accomplished. This formal school should precede on-the-job training received at the FMF organizational level; therefore, it would also perform a secondary mission of screening personnel assigned to the communication field prior to transfer to the FMF. Not only would it eliminate those who are not mentally or psychologically suited for communication duty, but it would be able to direct those with special qualifications into appropriate complex or technical fields of communications.

Application is a very important phase of the teaching process. Whereas the formal school provides the basic instruction and theories, application would be received primarily after the communication trainee is transferred to the FMF. As the number of school trained personnel in the FMF increases and these personnel gather practical experience, additional instructor potential is gained. Accordingly, the on-the-job training program improves, and progressively the communication capability of the unit improves.

To further ensure standardized and proper methods as well as providing continued interest, the Marine Corps needs a complete correspondence or self-study system similar to that of the Navy. Such a program, integrated with the promotional system, would ensure increased competence with increased rank. The availability of manuals appropriate to rank and military occupational specialty, would in itself provide considerable incentive to those who already desire to improve themselves. Add the requirement of imposed study and examination prior to advancement, and it will provide incentive to those who need to develop self improvement study habits. Not only would this supplement the on-the-job training program, it would provide improved reference material and guides for instruction. By increasing the standards for promotion rather than decreasing them, we may promote less communicators,

but those who are promoted will develop a greater pride through this challenge. Fewer but more highly competent communication non-commissioned officers would be of far greater value to the Marine Corps than multitudes of incompetents and misfits promoted under the current blanket type system. Overcoming the lack of experienced personnel and developing them into qualified career minded non-commissioned officers can only be accomplished by providing them with an interesting career, not by faster promotion and higher salaries alone. A high incidence of chiefs to indians merely aggravates the problem. Whether the concepts of this discussion are accepted or not, the requirement still exists; the policy makers and planners must develop an aggressive, comprehensive, and interesting training program for communications.

The problem of personnel assignment is exceedingly complex. It is certainly not limited to the communications field, but it must be given increased consideration appropriate to the increased significance of communications in future conflicts. The personnel problem falls into three primary categories; lack of qualified personnel, poor classification procedures, and instability of duty assignments. Like all military problems, none are entities within themselves but are interrelated with other problems.

Not only does the communication field suffer from the lack of trained and experienced personnel, it is suffering from the input of low quality raw material. Many of the individuals who leave the recruit classification office with the 2500 MOS attached have neither the motivation nor the intelligence to qualify in communications. The look-down-the-nose attitude of certain so-called combat fields often causes a young but highly qualified individual to shy away from communications. Although it seldom provides glory and glamor, there is as great a requirement for aggressive leadership in communication functions as there is in other functional fields. A universal understanding of communication responsibilities and capabilities plus an improved training program will serve to provide requisite motivation.

A requirement for personnel of superior intelligence always invokes charges of "empire building"; even if this were true, the overall impact of improved military communications would justify a communication "empire." Here again it is a matter of economy and self preservation. It is certainly uneconomical to create a complex, expensive, but inherently delicate device, and entrust its important operation to the hesitant or fumbling hands of a muddle minded individual. Communication equipment is becoming more dependable, but it is becoming correspondingly complex in design. At its best, the commander will always want results beyond designed capabilities. Only by the assignment of aggressively intelligent personnel to operate this complicated equipment will the desired peak efficiency be obtained. How can one expect quality communications when individuals with speech impediments are assigned as voice radio operators; when person-

nel who cannot read or write at high school level are assigned to transcribe messages; when a man who cannot be granted a security clearance is assigned an MOS that requires handling classified message traffic; or take the case of the private with 3 years of electronics at college and 2 years experience in the electronics industry being assigned a cook's MOS? Oversights, isolated in some instances, common in others, all are occurring with excessive frequency.

Couple this with the game of electronic musical chairs that both senior communication supervisors and personnel administrators are playing with communication personnel. One division communication company has experienced as many as five different company commanders in less than a year, none of whom were transferred for reasons of inefficiency. Such policies as these are detrimental to a group, whether it be a battalion communication platoon or division communication company. Such units need unit integrity and esprit as much as infantry units; troop leading is equally as applicable. The enlisted personnel turnover is almost as bad. It further aggravates the lack of continuity in on-the-job training. The individual loses the important feeling of belonging to a closely knit well coordinated unit. It is impossible for the communication officer to keep up with the capabilities of his troops or to promote teamwork when the personnel situation remains in such a state of flux.

The policy makers and planners, by virtue of their position, are charged to set the example. By the establishment of a more stimulating overall communication training program, setting forth definite policies regarding personnel classification, and stabilizing personnel assignments, they can lead the way to improved communications throughout the Marine Corps—communications that will be compatible with the war of the future.

The functional field of communications desires no empire; essentially, the organization of our Fleet Marine Forces provides a reasonably efficient communication table of organization. Even the present equipment, though not designed for the increased distances of nuclear separation, can be made to operate reasonably satisfactorily through careful planning and training. The functional field of communications was designed to serve the commander and his staff. It can and will serve with peak efficiency providing the current limitations of attitude are eliminated. No single piece of equipment will ever provide the panacea for communication problems; no single person or procedure will provide the master solution. Only when leaders place communication functions in the proper perspective of military operations; only when communication equipment is considered to be a weapon rather than a mysterious electronic device; only when every commander and staff officer accepts his full responsibility towards military communications; only then will our communication system cease to be the weak link in the chain of our national defense. USMC

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5th 105mm How Btry
1st Supply Co
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MB, Bremerton
MB, Guantanamo Bay
MB, Kodiak
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MB, Rota, Spain
MB, Whidbey Island
MB, Yokosuka
MD, USS Des Moines
MD, USS Taconic

(Others will be published next month)

MISSION FOR MODERN MARINES: THINK!

By LtCol T. N. Greene

CON'CEPT (kon'sept), n. [L. *copceptus,* fr. *concipere* to conceive.] 1. A thought; an opinion. 2. *Philos.* A mental image of a thing formed by generalization from particulars; also, an idea of what a thing in general should be. Syn: Idea.

— Webster's New Collegiate Dictionary

IT IS NOW CLEAR THAT CURRENT development of the modern concept does not include a complete kit of do-it-yourself instructions on how to run a battalion, a platoon or a fire team. It is also reasonably plain that having a concept does not automatically fill the supply shed with the shiny, new hardware we would all like to have. Why, do you suppose, don't "they" do something about this? "They" as so often used, is not a neat dictionary word, subject to exact definition. It appears to be, rather, a purposely vague term pointing the finger at nebulous higher echelons concerning some problem, about which the user has no intention of doing anything at all. Currently, it appears to be enjoying over-use. Indisputably, the Marine Corps does have higher echelons. These include, within the Headquarters, a formal organization for Research and Development. There is also, at Quantico, the Marine Corps Landing Force Development Center, which includes the Marine Corps Equipment Board and the Tactics and Techniques Board. Closely allied to all the above agencies, there are Marine representatives at numerous service schools, development agencies and joint boards — some at such a high level as to induce nosebleed.

Surely and inescapably, this far-flung organization represents a concrete "they" with very specific responsibilities for developing all facets of the modern concept. These responsibilities have been, and are being, discharged with a commendable degree of professional know-how coupled with imagination. Is there any good reason why we should not all wait patiently for whatever "they" will hand us next?

To answer that question, let's first take a look at what is involved in the overall Marine Corps Research and Development program. Strictly speaking, the framework of the program consists of long-range planning objectives supplemented by weapons systems concepts or support systems concepts, as appropriate. These concepts, or ideas, are really and truly derived in crystal-ball fashion. In fact, they consist of a prediction from the known state-of-the-art, as development progress is called, of what might reasonably be accomplished or attempted within a given time period. The systems referred to, embrace the 3 fields of: tactical doctrine and techniques, weapons and equipment, and organization and training. They must, of course, be broken down into the restrictive frames of time and money requirements.

From this broad base, carefully mortised into the Navy and Department of Defense Research and Development programs, springs the chain of events that leads to a weapon, a manual, or a T/O in the hands of troops. These links in the chain include development of an operational requirement — a directive to develop an item, followed by a development plan, determination of significant characteristics, and assignment of specific projects. Projects having to do with tactics, techniques and organization, are normally referred to the Coordinator, Landing Force Development Activities. This is an extremely simplified resume of what "they" do. Just how does it affect you and me?

First of all, this program, well organized and staffed as it is, must come up with the best answers. Second-best loses in poker and in war. Much money, talent and sweat have been poured into, for example, the automobile industry. Whatever happened to some of the kinds of cars we used to see on the streets? Second, the Marine Corps R&D program must not only get the best answers, it must get them first. In the teetering world we live in today, every Marine must develop a "sense of urgency" not merely toward highly-professional training and administration that will quickly develop combat readiness, but also toward keeping one step ahead in the field of ideas. That's what the modern concept is—an idea. The R&D program for our weapons and equipment, our tactics and techniques, our organization and equipment, all rests on basic ideas—ideas to implement the concept.

Business, today, more and more realizes that the realm of ideas can no longer be compartmented and left to alleged "thinkers" or "double-domes." The business trend to meet competition is toward "brainstorming" or "ideation" sessions. The object is quantity. Criticism is forbidden. The wheat can be separated from the chaff later. Rough gems can be polished. The Marine Corps Research and Development program, no matter how adeptly organized and administered, requires the logistic back-up of a Corps-wide, continuing brainstorming session from the grass roots. There exists today an excellent official pipeline for ideas. Units or individuals may readily pass such ideas to the Commandant, to the Marine Corps Schools and Development Center,

and to the representatives in the FMF. In fact, as new hardware, organizations, tactics and techniques reach the FMF, reports are being and will be required. Reports continue to be required on major exercises. Reviews of doctrinal publications are periodically required. Such reports should never be considered as onerous chores. The units and staffs required to submit a report should consider it a privilege — an opportunity to submit their ideas for consideration. Certainly they should have, in effect, a file of ideas they are anxious to have a chance to present. Further, on the unofficial side, the MARINE CORPS GAZETTE provides not only a select audience for ideas, but one that pays well, too.

Perhaps what is needed is a pump-priming program. Talk in the mess and during breaks in the field surely indicates that the ideas exist; the question is why so few of them are written down and put into the pipeline. How, then, can the pump be primed? Unofficially, the MARINE CORPS GAZETTE primes the pump of ideas with its regular rates for articles. The annual Essay Contest acts as a further incentive. However, both incentives act primarily on those Marines who feel, correctly or not, that they can write. One suggestion is that a periodic prize, monthly, or whatever the budget can afford, be offered, just for ideas. Neither typing nor extra copies should be required. Use of an official entry blank is suggested. Material received, when processed, should provide an interesting feature which might tend to stimulate further ideas. The first rule of brainstorming should apply: Avoid destructive criticism — try to build up a previous idea, not tear it down. If it just won't work, offer an alternative. Unfortunately for the flow of ideas, much of the modern concept bears a security classification. Some of the more challenging ideas may not be discussed in a public forum. It is suggested that funds could profitably be spent in the tactical field in the same manner as they now are in routine administration via the "Beneficial Suggestion" program, which pays cash rewards for money and work saving ideas. This is not to imply that Marines will not respond to the clear call of their duty to improve the Corps; this is only to encourage them to respond sooner.

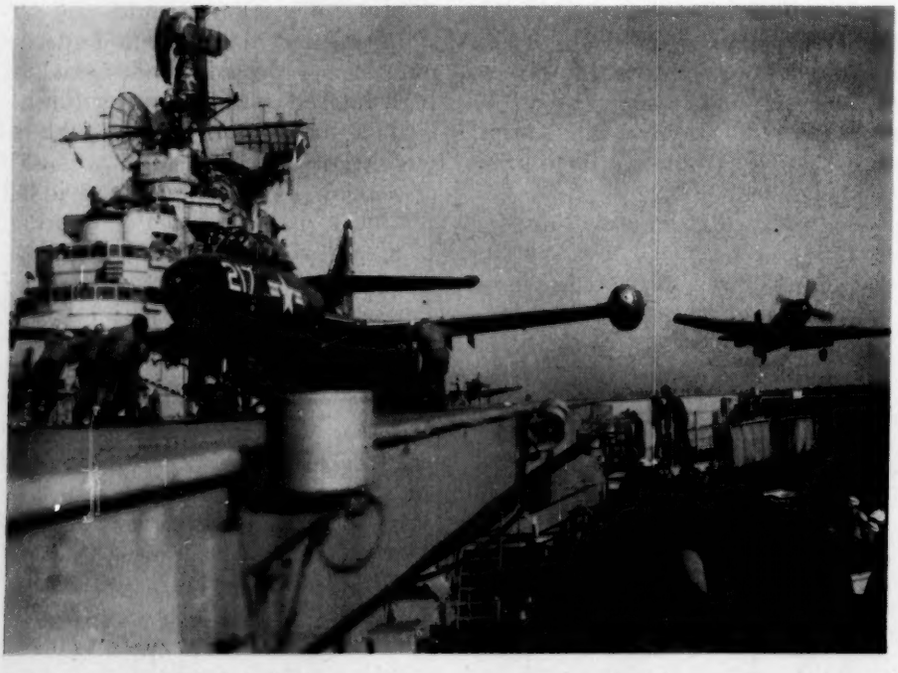
There is available another method of pump-priming for ideas, which does not depend on a dollar incentive. As stated previously, the Marine Corps R&D program and organization both tend to be large, multifarious, complex and technical. It cannot hope to be well understood by all Marines. Security will not permit too widespread dissemination of critical developments and areas of extreme interest, although constructive and continuing steps in this respect are built into the program. The fact remains, however, that the average Marine could well hesitate to write down officially his pet idea, because of a well-grounded fear that, analyzed in the light of information to which he does not have access, it may appear ridiculous. The Navy, recognizing this type of human factor, has taken a forward step in its Tactical Improvement Program for periodic review of publications. In each tactical publication is inserted a tear-out form so that a user may jot down informally a suggestion for improvement and send it on its way without muss, fuss or red tape. Such a form could also be of benefit to the R&D program, as well as to Marine Corps publications, which, incidentally, use it — had you noticed? Quite possibly such a form could well be supplemented by a periodic bulletin on current projects and areas of high interest, within security limits. Such a bulletin, if written with a low security classification, would also serve as the needed periodic reminder as to what the existing pipelines are. There may not be anything quite so dead as yesterday's newspaper, but some "current" directives offer pretty stiff competition after they've worked their way into the average files for several months.

So far, we have taken a look at the organization and program for implementing the modern concept, seen the urgent need for the raw material of ideas if "they" are to do the vital job of getting the best solutions and getting them first. A few ideas for priming the pumps on the good, existing pipelines for ideas have been broached. These still are

things that "they" must do. What can we do, you and I, to plug the gaps each of us is so sure exist in the skeleton of tactics and techniques, weapons and equipment, organization and training, now, near-future, far-future and maybe-someday, that we call the modern concept?

To kick off our brainstorming session, let's flash on the screen the motto of the Marine Corps Equipment Board: "One test is worth 10,000 expert opinions." This is a motto that does not only apply to equipment, it applies with equal force to tactics, technique and organization. These aspects, remember, are generated to a very large extent at Quantico. Obviously, complete testing cannot be had there. Formal tests have been and will be made in the FMF, but neither can these be conclusive. Every day, even as you read this, some leader is applying tactics or technique with a special twist of his own. In every T/O there are men who, by specific purpose, are not the exact rank and MOS and who do not do the exact job contemplated in that table. Further, the equipment provided those men may not all be in use; some is being used in new ways; and if new gadgets and devices aren't being tried out right now, the Marine Corps has gone to perdition since yesterday. Many unit SOPs contain new thoughts. More of them should. All these variations from the norm qualify as ideas. If there is a good reason for them, they merit being written down and submitted, officially or unofficially. These variations or ideas may not, however, qualify as having been tested. If not, there is a discernible tendency in correspondence of those who do forward ideas to recommend that "they" — or somebody, anybody else — "test and evaluate this."

Gentlemen, the Marine Corps cannot be fresh out of field expedients and the imagination to apply them, and still remain our Corps. This modern concept is not something for someone else to test, evaluate and improve. It's our job, yours and mine. We can make our own tests on any aspect that falls in our field of endeavor, whether it's the "school solution" they hand us, or an idea we cook up ourselves. At least we can test until we are sure that we, ourselves, are on firm ground. The first requisite for such a test of ideas is to understand the modern concept itself. The information is available. It affects you. Dig it out and master it, because this is your profession. Be sure that you will not begin to understand it until you analyze it in extensive detail. This will require a busy imagination. The key words are: "What would happen, if . . . ?" Too often in routine training and even in large-scale exercises we neglect whole sections of the job we would really have to do in combat. All too often the S-3, and maybe the S-2 section gets a first class workout, while the S-1, S-4, and many of the special staff, sit and cook coffee. This picture obtains among the specialists at company level and below, as well as at division and intermediate staffs. It comes about from inertia sometimes, sometimes from either laziness or the pressure of other commitments, and most often from plain lack of application of imagination. Most "Threes" do use their imaginations to frame as realistic a tactical problem as possible. Commanders up and down the line closely check this aspect of plans, well knowing that maximum realism results in maximum training. Too seldom, however, do the other staff sections "get in the act" to frame a realistic training exercise early in the planning cycle. This deficiency can and must be corrected if we are to "wring out" the tactics, techniques and organization of the modern concept.



Nuclear fires may or may not solve some of our tactical problems, but they'll never solve nuts-and bolts logistic problems — at least in any useful way. We must, in routine training, focus our imaginations and resourcefulness on all aspects of the modern concept. We cannot afford to ignore any aspect of a new system, any more than we would ignore a strange noise in a brand-new automobile or aircraft. After we've checked it out and grown familiar with it, we may be able to afford to let some things slide, at least for short periods, but nothing can be let slide until we are dead certain the whole mechanism works, and works right.

Among the major aspects which we might submit to the "What-would-happen, if . . . ?" test is the subject of nuclear fire support. It is evident that we must be prepared for potential hostile use of atomic fires. We must also be physically and mentally prepared for hostile non-use of atomics. It's easy to solve a problem by reaching in the bag and pulling out a very large weapon. History, however, is full of examples of outstanding success gained by attention to very small details. Here are a few examples:

Frederick the Great's armies drilled better and could turn into battle line more quickly than their foes.

Napoleon's smaller divisions got there faster by separate roads than larger, more cumbersome enemy armies following one road.

Stonewall Jackson marched a little faster.

Rommel reacted sooner from his forward CP.

The Marines in the Pacific had the detailed techniques of amphibious war — from tactics of the fire team to the reef-conquering amtrac.

Historically, on the field of battle as on the football field, the winners have somehow gotten that half-step lead on the opposition secondary. In the field of mobility, we now have the helicopter — a set of tactical seven-league boots if there ever was one. Will all our procedures keep up with the chopper pace? Or will we get there firstest with the mostest, except for what's got to come later?

Another historical trend shows that victory has most frequently gone to the side with a better weapon or a better way of using it. Examples are numerous: the English longbow at Crecy, Poitiers and Agincourt; the Prussian needle gun at Sadowa; the Marine '03 at Belleau Wood; coordinated supporting arms at Iwo, Okinawa, and the attack out from the Reservoir. In the final analysis, the entire modern concept — tactics, techniques, organization and training — depends on the hardware, the families of weapons with which we will fight. The development of that hardware depends to some extent on technical calculations and developments you and I may know little about. We can influence the direction of search, however. We can set ranges, lethality, weight, rate of fire that we'd like to have, and explain how we'd use the weapon if we had it. Given time, money, and above all the right priority, modern science can build almost anything. What it builds and what the priority should be is where tactical guidance comes in. Of course we must avoid searching too far ahead to the exclusion of the present. While waiting for an "ultimate" weapon, we could have a large hostile force advance in dogsleds and beat us to death with clubs.

Here then are 2 vital areas for thought, for ideas, in our modern concept: full exploitation of helicopter mobility and development of the optimum families of weapons. We should examine them in both nuclear and limited war.

Let's start brainstorming to generate the ideas that fuel the Marine Corps Research and Development program.

Let's get the best answers and get them first to convert the modern concept from idea to firm fact.

Let's prime the pumps and widen the pipelines for the flow of ideas, both officially and unofficially.

Let's stop sitting on our inertia and hoping that "they" will develop, test and evaluate.

Let's take a long hard look at every facet of the concept from what we know in our own fields of what it takes to fight a war.

Let's harness our imaginations for practical results.

And, above all, let's think it over, test it, write it down and send it in. Remember, you have to crush tons of plain rocks to get one pound of uranium.

We can, we must, and we will complete the modern concept with the right hardware and the right field manuals. That is the vital mission for modern Marines: *Think!*

USMC

★ ★ ★ ★

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GLENN L. GARDINER

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". . . . shall we, in our haste to slay,
From the tombs of the old prophets
steal the funeral lamps away,
To light up the martyr-fagots round
the prophets of today?"

Excerpt from *The Present Crisis,* by J. R. Lowell

THE LAST 200 YEARS HAVE BEEN rich in the development of weapons and tactics for the military art, and even richer in the number of prophets who have pronounced the way the art should be going. Specifically, Clausewitz advanced his theories on strategy and tactics; MacKinder expounded his heartland ideas; Mahan linked world power irrevocably to sea power; and Douhet asserted that air power was dominant, and that in future wars, the whole of a nation would be a target for an exclusively aerial onslaught.

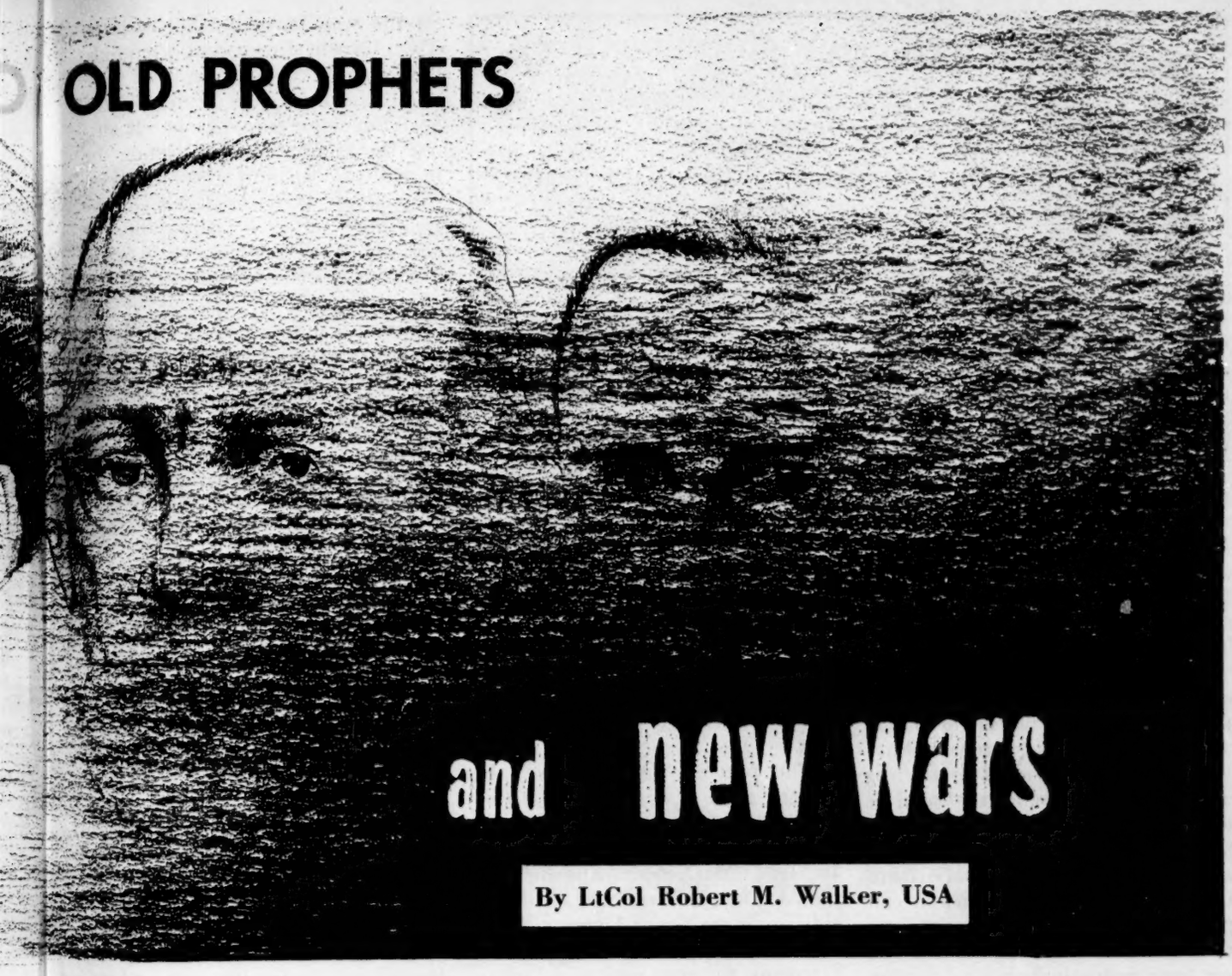
There have been many others, of course, in addition to these. Adm Mahan's father, Dennis Hart Mahan, who is said to be one of the early exponents of the "doctrine of the offensive"; Antoine Henri Jomini; Mitchell, who demanded that the armed forces practice what Douhet (and he) were preaching, and still others almost too numerous to mention. But most of the military thought of today seems to go back, one way or another, to the first four prophets.

The most interesting aspect of their predictions, convictions and teachings, however, does not lie in the fact that they are widely known and quoted. It is in the fact that each of these gentlemen lived, thought and wrote, in an age and at a time when the atomic and nuclear weapons were beyond conception. Despite this, their names and works still appear on most if not all reading lists for military students. And this at a time when the atomic and nuclear weapons are vitally affecting every aspect of military organization, tactics and strategy.

Are their principles still the "bible"? Does the atomic weapon and the massive retaliation dogma of today have any effect, for example, on Douhet's "the air arm alone is capable of victory" ideas, or Clausewitz' "doctrine of violence"?

The major nations are in a mad scramble for dominance in many fields. The race is on for faster aircraft, ballistic missiles, more effective communications and countercommunications, greater battlefield mobility, and lighter harder-hitting hand weapons. Almost every possible area of military endeavor, from 85,000-ton aircraft carriers to the hand grenade, is involved in the race for a better defense, (or offense, as the case may be).

OLD PROPHETS and new wars



By LtCol Robert M. Walker, USA

New ideas are met with wild enthusiasm by supporters and equally wild derision by detractors. Our organization, doctrine, strategy and tactics are being revised so constantly that revisions are overlapping. Technical progress is moving so fast that in some cases new equipment is obsolete before it is in production. But our prophets seem to be like Caesar's wife — above reproach.

Clausewitz' *On War* is still required reading in many military schools, and Douhet is still idolized as the Messiah of air power. Mahan is still the guiding light in applying the lessons of the past to the war of the future for the Navy, and MacKinder, while hardly believable from the Western point of view, would appear to be a likely candidate for one of the most widely quoted authorities in the Soviet military academy.

Certainly, no lesson of the past should be thrown away capriciously, or without long and sober thought. With equal validity it can be asserted that no principle, regardless of who originated it, should be retained for any other reason than that of its contemporary or future applicability. Most certain of all, no prophecy or prophet should be held above suspicion, especially those who outlined their principles and drew their lessons without knowledge of the existence or effect of today's potent weapons. The high price that may have to be paid for blind adherence to a questionable theory is probably best emphasized by mention of the Maginot Line.

It is not a lack of faith to go back and re-examine the ideas of the "old prophets," even those in which some may steadfastly believe. Rather, to fail to do so is to imply that we have learned nothing since their day, and that the conclusions they expounded, are still basic truths — a dangerous implication.

Clausewitz

The theories of Karl von Clausewitz, as expressed in his *On War,* were posthumously accepted as the military "bible" of the Prussian Army. It is widely read throughout the world, and just as widely quoted. The first American edition states:

"Famous military leaders and writers of Germany in those days, like Moltke, Von der Goltz, Meckel, and many others, declared themselves to be pupils of Clausewitz and said that Germany owed to him her success on the battlefield."

Marshal Foch of France wrote an interpretation of Clausewitz' principles in his own *Principles of War.* Many of Clausewitz' thoughts have appeared in military doctrines throughout the world, especially in those which now comprise the main

LtCol Walker, USA, enlisted in the Army in 1936 and was promoted to 1stSgt prior to commissioning in 1942. He commanded an AAA battery on Saipan and Iwo Jima during WWII. Upon graduation from the Command and General Staff College, Fort Leavenworth, in 1952, he served for 3 years at HQ, USAREUR, Heidelberg, Germany. Currently he is stationed at Fort Leavenworth as Special Sections Editor, "Military Review."

forces of the free Western world. Although, as Edward Meade Earle mentions in his *Makers of Modern Strategy,* Clausewitz is more quoted than studied.

The Clausewitz conception emphasized that war is an act of force, and to the application of that force there is no limit. He theorized that defense was a form of war superior to the offensive, and accented the importance of the counterattack (Today's Massive Retaliation).

The effect of the nuclear weapon, coupled with the "massive retaliation" doctrine, on the main Clausewitzian theme of "force without limit," is easily seen. The nuclear weapon literally is an expression of force without limit, but we would be doubly fools to make any indiscriminate application of such force unless we can be assured that we can prevent the application of that same unlimited force against us. We do not have such assurance.

The application of unlimited force by weapons of comparatively limited destructive effect was perhaps a feasible doctrine during the days of the Napoleonic triumphs. It could possibly have been considered valid through WWII, but it lost all credibility the instant the Soviet Union placed their first atomic weapon in their stockpile of arms.

This alone of course, should not impel military theorists to abandon Clausewitz, for other of his teachings and principles may retain a reasonable validity. It does, however, make imperative a continuing critical investigation of any doctrine based upon his observations and opinions on strategy, tactics and technique.

MacKinder

A half-century ago, Sir Halford J. MacKinder brought forth his famous idea that:

He who rules East Europe commands the heartland,

He who rules the heartland commands the world island,

He who rules the world island commands the world.

The world island MacKinder considered to be the continents of Asia, Africa and Europe, and his heartland is almost exactly the area occupied at this time by the Soviet Union.

The Germans strove desperately to prove the validity of the "heartland" theory during WWII, but were as convincingly unsuccessful in their invasion of Russia as Napoleon had been a century and a half before.

The present "heartlanders," the Soviets, seem to be achieving a considerably greater success in putting the ideas of MacKinder into reality. In fact, MacKinder himself predicted this, when he wrote in 1943:

". . . . if the Soviet Union emerges from this war as the conqueror of Germany, she must rank as the greatest land power on the globe. . . . For the first time in history it (the heartland) is manned by a garrison sufficient both in number and quality."

It has become fashionable in the West to smile knowingly at MacKinder's ideas, to say that he overestimated the importance of the world island and underestimated the world position of the United States; that he failed to consider technological advances; and that his contention as to the pivotal importance of the position of the "heartland" in leading to domination of the world was a miscalculation. But this has not yet been *proven.*

It is a fact that some happenings of the historically recent past would indicate a certain weakness in MacKinder's ideas, but the Russians are putting a lot of effort into proving him right.

The communist influence has spread far beyond the heartland, and MacKinder's second step seems to be on the way to realization. China, Tibet, North Korea and Vietminh, have entered the Soviet sphere. The satellite countries have extended the Soviet demesne into Europe. If anyone thinks Africa is not feeling the nudge of expanding communism, they should read the results of the December, 1957, Cairo-sponsored African-Asian peoples conference. There may be disagreement on the effectiveness of the spread of the communist influence, but the reality of the Soviet move to accomplish the second step MacKinder postulated must be categorically admitted.

MacKinder may be questioned in the free world of the West, but there can be little doubt that the Soviets agree with him.

Mahan

The works of Adm Alfred Thayer Mahan have been translated into many languages and have had a tremendous influence on the military policies of many nations. His theories concerning the importance of naval power (or according to the phrase he coined—sea power), were rather well proven in WWI, and given a full trial in WWII, and not found wanting.

However, when Mahan wrote of the necessity for control of the seas, the airplane, the atomic weapon and the supersonic missile, had not yet entered the family of weapons. He did not predict the increased importance of the submarine, and he lived and died before the advent of the aircraft carrier.

As a historian he was without peer. As a prophet, he has far less to offer, for technological advances have drastically changed both the political and matériel aspects of naval warfare since the era in which he lived.

However, the student of naval warfare of the past and the theorist of naval warfare of the future are not apt to completely neglect Mahan. He taught principles that many believe to remain unchanged.

There is one other thing that can certainly be said to be true about Mahan's thoughts on sea power. Until the remote day that some means, other than surface vessels, can be found to transport across the Atlantic ocean the vast amounts of supplies our European Allies will need in a war, and while the Soviet submarine fleet remains the potent

threat to sea transport that it is, control of the sea *a la Mahan* will continue to be vitally necessary.

Douhet

Giulio Douhet, who proclaimed the birth of the principle of air warfare, challenged the doctrine that war must be waged exclusively between armed forces. He argued that the sum total of a nation's strength is involved in war, and that the armed forces were but one element of that strength.

He felt that there should be 4 major subdivisions of the armed forces, i.e., land, sea, air and territorial defense. He wanted all armed forces combined under a single defense ministry. Believing that only the air arm could decisively defeat an enemy nation, he felt that force should be massed at the decisive point—in the air arm—and the other services reduced to only sufficient force to accomplish a defensive mission. He was also careful to emphasize the extreme difficulty of defending against aerial attack.

Maj de Seversky, a modern prophet with similar views, vehemently reinforced the Douhet concept of a single service dominated by air in a television interview on 28 December 1957, and other Douhet supporters are not reluctant to speak up for his thesis. There can be little doubt of the attractiveness of his concepts to the airman, nor can there be much doubt of the manifest disagreement of the naval or ground force man. Since the day that Douhet made his ideas known there have been many such disagreements. His own national authorities (Italy) so violently disagreed, in fact, that he was eventually courtmartialed and spent a year in military prison for his so-called "false and defamatory statements about the high command."

In fairness, it must be added that just about the time Douhet was completing his prison term, the disaster of Caporetto struck Italy. The official investigation to determine the causes of the disaster found them to be exactly those things for which the air power prophet had been so enthusiastically criticizing the high command. In 1918 Douhet was given a place in the Italian Aeronautical Commission, and in 1920 a military court was convened for the specific purpose of reversing his original conviction.

WWI had certainly not proven his theories to be correct, nor did WWII completely justify him. However, at the end of WWII, and this is something Douhet never contemplated, the atomic weapon entered the picture. With this, Douhet was vindicated, for the airplane armed with the atomic weapon was able to decimate a country—to either destroy the population's will to fight, or destroy them.

Then a second revolutionary occurrence came to pass in the developing scheme of military power. The Soviets detonated their first atomic weapon. The arms race for faster and faster bomber aircraft and for intercontinental missiles was on.

The air strength retained its ability to destroy, but another facet of the Douhet "prophecy" came to the fore. It was Douhet's belief that defense against air power was overwhelmingly difficult, and he was right. The truth of this is amply evident in the present day atomic stalemate of "massive retaliation."

There can be little doubt that Douhet presented a clearcut guidepost to the Great Deterrent. While the atomic weapon was possessed solely by the United States the air arm was surely, as Douhet had said, the dominant service—the arm best capable of truly offensive action. But the day the weapon of the Great Deterrent became the instrument of massive retaliation, his major thesis became obsolescent. Strangely enough, the very weapon that gave the greatest force to Douhet's arguments on the dominance of air power over land and sea forces finally proved these same arguments invalid because of the truth of Douhet's ideas on the difficulty of defense against air power.

Conclusion

Many words have been written by newer and younger prophets logically demonstrating how wrong the older prophets were, or proudly and enthusiastically proclaiming to the world how right they were, according to the views of the writer. The "Monday morning quarterback" exists in military circles as well as in sports.

But no matter what they say or how vehement their assertions, the lessons the older prophets taught surely still have a place in military thought. Contemporary history may have proved them wrong in some of their convictions, but until the battlefields of the future prove them completely outdated, we dare not discard them.

Right now, it is not at all difficult to imagine MacKinder looking down from his place on high and saying, "Well, they cannot say I didn't warn them."

USMC

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Enter Suspicion

SPECIAL ORDERS ARE POWERFUL sheets of paper, but I sure never realized *how* powerful until one day a typographical error almost broke up a newly married officer's home.

After typing an order assigning the Lieutenant to a multitude of additional duties, an error went unnoticed until his bride found a copy of his orders in a pocket of his uniform. The Lieutenant had been assigned to a Designing Board, but the new bride was convinced that her husband had been assigned . . . just like it said . . . to a *Designing Broad.*

TSgt C. M. DeVere

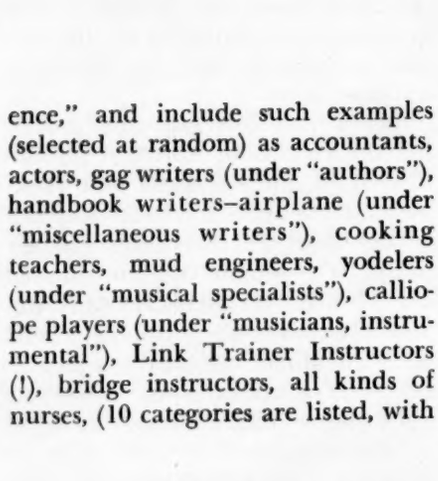
OBSERVATION POST

WHAT'S MY LINE?

MARTD, OLATHE, KANS. — I have followed the emphasis on the "professional approach" since its inception. Allow me to state that I understand your objectives and your motives and concur with both; however, I feel that I must at last make some comments which may launch either a controversy or a crusade, or both.

To begin with, there is the matter of definition. There is to my knowledge only one comprehensive and officially authoritative source to which one may go to obtain definitions of such terms as "professional," "service," and "aviator," and that is the *Dictionary of Occupational Titles*, prepared by the Division of Occupational Analysis, United States Employment Service, United States Department of Labor, and published in March, 1949.

Volume II of this tome contains the Occupational Classification Structure, wherein job titles are "arranged into major groups, divisions, and subdivisions, each set apart by an appropriate heading and code range to indicate the scope of the group or division." A careful perusal of this section of the dictionary is rather a startling experience. For instance, it will, I think, come as something of a shock to your readers to learn that on the one hand professional occupations are those "that predominately require a high degree of mental activity . . . are concerned with . . . complex fields of human endeavor" and demand "extensive and comprehensive academic study . . . (equivalent) experience . . . or a combination of such education and experience," and include such examples (selected at random) as accountants, actors, gag writers (under "authors"), handbook writers–airplane (under "miscellaneous writers"), cooking teachers, mud engineers, yodelers (under "musical specialists"), calliope players (under "musicians, instrumental"), Link Trainer Instructors (!), bridge instructors, all kinds of nurses, (10 categories are listed, with



38 sub-categories), weather forecasters, and chiropractors. But on the other hand, "semiprofessional occupations" are "less demanding with respect to background or the need for initiative or judgment . . . than those fields which are considered as 'professional,'" and leading the categories thereunder listed is occupation group O-41: "Aviators." Sharing the pages with the aviators are such other "semi-professionals" as window-dressers, tattoo artists, strip-tease artists (sub-categories, for your further edification and instruction, are "peelers" and "teasers"), toy designers, chiropodists, masseurs, billiard players, sparring partners, wrestlers, horse exercisers, various sport and race-track officials, airport control tower operators, airplane dispatchers, instrument-landing truck operators (GCA?), various lesser showmen (hypnotists, freaks, snake-charmers, ventriloquists, jugglers, parachutists, ringmasters, dog-trainers, and organ-grinders (!), undertakers, numismatists, fortune-tellers (6 sub-categories), Christian Science practitioners, and tea-and-coffee tasters.

Penetrating deeper into Volume II of the *Dictionary of Occupational Titles* in search of some indication of the relative standing of the military services, one gains little satisfaction from discovering that "Occupations . . . specifically concerned with the protection or guarding of the country . . . " are listed at the end of the specific group entitled "Protective Service Occupations," which is in turn one of 4 groups listed under the general group entitled "Service Occupations." To show what kind of company we are in, the other 3 groups are "Domestic Service Occupations," "Personal Service Occupations" and "Building Service workers and porters." Actually, soldiers, Marines, sailors, and Coast Guardsmen can count themselves fortunate in being listed at all (category 2-68); Air Force personnel (Airmen) have been omitted entirely!

From all of the foregoing, it would seem an official impropriety for us "semi-professional" aviators to attempt to don the mantle of professionalism. Particularly does it appear presumptuous to propose that what is, after all, only a branch of a "Service Occupation" should be elevated to the exalted status of a "Professional Occupation." No, my fellow "semi-professionals"; speak not of the time and treasure which must be expended to procure even one gold-bar-type Naval Aviator; cite me no statistics relative to the development of this newly designated airplane driver into the responsible leader of squadron and air group

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formations of many men and hundreds of millions of dollars worth of complex flying machinery. We cannot be professionals because the agency of the Federal Government charged with defining what we are says that we are not.

Well, I am as little content with being a "semi-professional" as you are, but if we are not "semi-professionals," what are we? We pretend to the status "professional" because it is respected and accepted, and because the word has a sonorous ring when spoken aloud. It may strike low and deep at a lot of aviator ego, but I think this is at the root of our efforts to sell the "professional approach." For my part, however, the efforts are oriented in the wrong direction, for I believe that far from the "mantle of professionalism" being too large for the aviator to fill, the kind of aviator who possesses the integrity and proficiency which we must set as our standard of excellence will be many sizes too large for any garment bearing the label "professional." While it is true that in the broad sense a "profession" is defined as "one's principal calling, vocation, or employment" (Webster), the term "professional" as used more widely in our society today has come to have meanings more narrow and sometimes more opprobrious, viz. (adjective) "conforming to the technical or ethical standards of a profession or an occupation regarded as such," but more specifically "engaging for *livelihood* or *gain* in an activity pursued . . . often for noncommercial satisfactions by amateurs," or, worse yet "*assuming* a rôle as though it were a profession" and again, as a noun, "one who engages in anything professionally . . . opposed to *amateurs*"; "professionalism" is "the following of a profession, sport, etc. for a *livelihood* or for *gain*" (Definitions: Webster. Emphases: mine).

Finally, when one "professes," one declares, protests, avows, or claims, none of which guarantees conviction, faith, purpose, or learning, but serves only as outward representation.

Really to settle the question of how we may properly describe ourselves, we must go to the heart of the matter, and the heart of aviation is found in the answer to the question: "What manner of man is required for the apotheosis of military aviation?"

Before giving my answer, allow me to dispose of both the amateur *and* the professional. The amateur "cultivates a . . . pursuit" from "fondness, liking or taste"; he is, in fine, a dilettante, motivated intellectually and sensually. When the fondness fades and the liking lapses, he abandons his pursuit as no longer amusing. We do not want the amateur.

The professional has as his chief motivation the theme which recurs in the definitions cited above, namely "livelihood or gain." He is fortunate if in addition he has the amateur's "fondness, liking or taste," but make no mistake about it, the professional will not long continue to pursue a non-remunerative occupation, and if afforded an opportunity to transfer to a related field or altogether different occupation which is *more* remunerative, he will generally seize it. I conclude, therefore, that we do not want the professional either.

For at its most demanding, military aviation, an art more dangerous than the Corrida de Toros, a physical discipline more exacting than yoga, a business more challenging than corporate leadership and financial maneuver, and a science more elaborate than any field of applied engineering, demands an additional spiritual reserve which neither the amateur nor the professional possesses. For the man who labors because he *wants* to and the man who labors because he is *rewarded* are both pursuing "happiness," but the protection of each of their happinesses, and of their lives and their liberties which our government guarantees, must fall to men of whom Otto von Bismarck spoke when he said: "Man is not born for happiness, but for duty."

Away, then, with "professionalism," and look not to the professional, but to the man who combines integrity, proficiency, *and* dedication, the man who labors not because it is amusing, or remunerative, or expedient, or even always acceptable, but because he *must* and, more than that, because he *knows* he must, because it is his *duty*.

Call this man, if you will, motivated, dedicated, a man of conviction, loyalty, or faith, but *not* "professional." He is far, far greater than professional — for "The path of Duty," as Tennyson said, is "the way to glory."

Capt J. M. Verdi

CONTENTMENT BEGINS AT HOME

EUCLID, OHIO.—AMSgt Perkins' letter in the Observation Post (GAZETTE: Dec '58) deals with one of the most controversial topics in the workaday life of the Marine Aviation branch; namely, "Why does a trained aviation mechanic (or electronic technician, or gunner) have to waste his time on mess duty (or guard duty, or barracks details)?"

As a former Marine aviator who also served an apprenticeship as an aviation enlisted man, I have heard endless debate on this subject in squadrooms, slopchutes, carrier ready rooms, officers' clubs, and myriad other locations whenever men had time on their hands and diverse opinions to express.

The long-standing (i.e., traditional) school of thought on this subject says that in the Marine's life there are many tedious chores to be done, and that these are usually done by the lowest rated men, whether qualified mechanics, potential geniuses, holders of masters degrees in physics, or what have you. That is the way things are.

A second school is exemplified by AMSgt Perkins. The sergeant believes that aircraft mechanics should spend the majority of their time working on aircraft, and he advances some concrete suggestions as to how this situation can best be realized. This is a very good thing, as any line or engineering chief bedeviled by duty rosters will attest. Sgt Perkins, however, bases his argument on the assertion that it may actually be dangerous to assign mechanics to non-technical duties because "many of these men have been distraught over having to leave their aircraft for the confines of the mess hall or guard duty," and that this state of mind may directly contribute to maintenance error accidents.

It is this remark which makes the letter unique, at least to me and possibly to some of my contemporaries. The complaints of aviation

personnel about assignment to guard and mess duty have echoed loud and long down through the years, no doubt since at least the *second* day following the birth of Marine Corps aviation. Nor have these complaints been entirely confined to enlisted men. Any flying officer would be glad to expand on the evils of "non-flying" duties. Consider the periodic assignment of pilots to the OD roster of squadron, wing, and station. Or those luckless aviators who, for a period during WWII on the West Coast, wore the armbands of Shore Patrol officers and made nightly rounds of the gayer spots in the Laguna Beach - Balboa area to keep an eye on their celebratory, off-duty brethren.

Has anyone totaled the average yearly man-hours accumulated by junior officer pilots sitting on Post Exchange inventory boards and courts-martial? Or the time consumed by that perennial lament of Marine aviators, assignment to ANGLICO units as Forward Air Controllers?

No, for all of this has been considered pretty much part of the game, and it is more than a little disquieting to hear that an aviation mech grabbed for the duty roster may be so psychologically unsettled that the aircraft he works on may crash because of a maintenance error. The possibility is disturbingly sinister, and the answer probably requires a great deal more scientific psychology than this GAZETTE reader can muster. It seems evident that the character of Marine aviation personnel has changed drastically if AMSgt Perkins is right.

I wish to note, however, that if the Marine Corps desires to make its aviation units a homogeneous *corps d'elite,* so to speak, by removing from them the burden of military housekeeping chores, it can do 3 things; namely, 1) maintain permanent guard companies for all posts, stations, and units, including AirFMF; 2) contract its Stateside mess facilities to private catering concerns (this has been done in the case of Air Force officers' messing, and it can be made to work); 3) contract for local civilian help to keep barracks and grounds cleaned up.

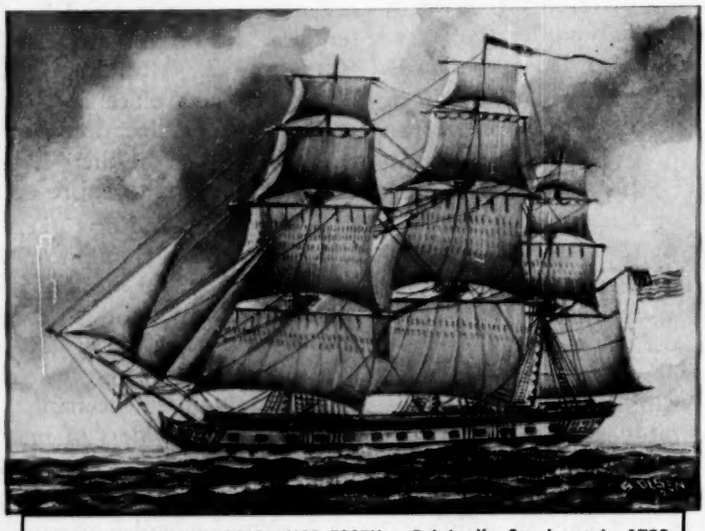
None of the above is a new idea, but the Corps has never put all 3 into universal practice. It's not likely that this will happen, however, for then we would defeat the purpose mentioned by AMSgt Perkins whereby the Corps rightfully claims that it gives the US Taxpayer the highest poundage of lean, hard fighting weight per dollar.

So the chores must be done, and the Sergeant makes some good points when he recommends 4-year minimum enlistment and MABS assignments for new men. The 4-year minimum enlistment cannot help but alleviate many on-the-job problems, most of which solve themselves for the men concerned by the simple expedient of the passage of time. I do not think that the Corps can ever hope to get its money's worth out of a 2-year or even a 3-year man, particularly in the technical branches.

If the purpose of the MABS is to serve the Aircraft Group at its assigned base, then let it perform its function in a complete manner, and supply *all* guard and mess requirements.

If, however, the average Marine aviation mechanic is so hypersensitive as to be completely "shook up" at the mere thought of guard and mess duty, then perhaps we'd better start farther back, at the recruiting office for instance, or even beyond that!

Theodore K. Thomas



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General Rules

1. **Contestants may write on any subject of military interest but essays may not exceed 5,000 words and they must be original.**
2. **They must be typewritten, double-spaced, on paper approximately 8 x 11, and must be submitted in triplicate.**
3. **The name of the author shall not appear on the essay. Each essay heading shall contain an identifying phrase consisting of the last 5 words of the essay. This phrase shall appear:**
   a) **On the title page of the essay.**
   b) **On the outside of a sealed envelope containing the name (rank and serial number, if any) of the author.**
   c) **Above the name and address of the author, inside the identifying envelope.**
4. **Essays and identifying envelope must be mailed in a sealed envelope marked Prize Essay Contest Group (I, II, III, IV as appropriate) to the Secretary-Treasurer, Marine Corps Association, Box 1844, Quantico, Virginia.**
5. **Essays must be received by the Secretary-Treasurer prior to 1 October 1959.**

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DEADLINE 1 OCTOBER 1959

The Marine Corps Association

PASSING IN REVIEW

ARMS AND THE STATE

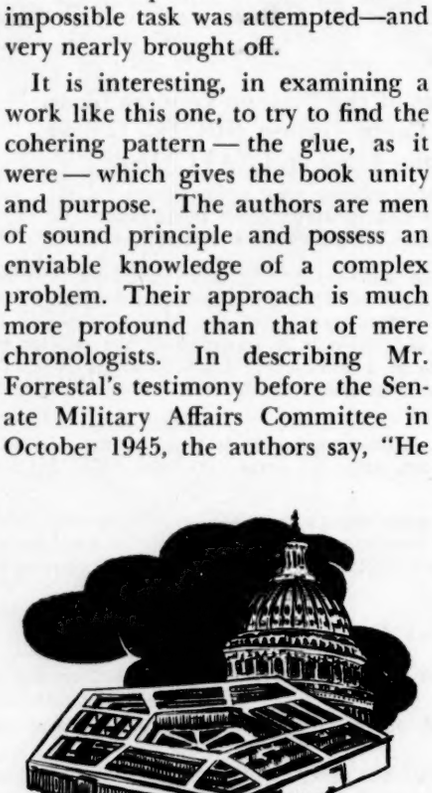
WALTER MILLIS with HARVEY C. MANSFIELD and HAROLD STEIN. 414 pages. Notes on Sources, Index. The Twentieth Century Fund, N. Y. $4.00

This volume is a product of the Twentieth Century Fund's examination of civil-military relationships. The first half of the work begins with a quick survey of the influential men and ideas of the 1931-1937 period, moves to the transition period of 1938-1941 and then to WWII. The second half deals with the post-WWII period, with emphasis on responses to the cold war situation, the Truman-MacArthur *cause célèbre,* and the global problem confronting the country today. In the words of the Fund's "News" accompanying the review copy, "this study presents the history of recent experience in civil and military relations as a needful prelude to constructive thinking about today's urgent problems in this area."

One of the interesting things in this book is its focus on the relative newness of America's position as a world power and the events and attitudes accompanying the nation's movement in that direction. The depth of feeling on the side of those who favored non-involvement and isolationism, and of those who were opposed to any form of military action was great indeed. It is difficult today to think that just over 20 years ago the House of Representatives rejected, by the slim margin of 21 votes, a resolution which provided that the United States would never again go to war, except in case of actual invasion, without prior approval of a popular majority in a national referendum.

It would be pointless to attempt, in a review, to summarize the ground covered by the authors of this useful work. With one caveat, to be put forward later, it is this reviewer's opinion that an almost impossible task was attempted—and very nearly brought off.

It is interesting, in examining a work like this one, to try to find the cohering pattern — the glue, as it were — which gives the book unity and purpose. The authors are men of sound principle and possess an enviable knowledge of a complex problem. Their approach is much more profound than that of mere chronologists. In describing Mr. Forrestal's testimony before the Senate Military Affairs Committee in October 1945, the authors say, "He



had established the principle that military reorganization must include a higher organization of the political, diplomatic, industrial and economic factors in defense and foreign policy as well." This comes close to a definition of the basic fabric of this book. From beginning to end we are given a careful survey of the institutions, principles, men and events, involved in the evolution of American doctrines and procedures for dealing with the increasing complexity of the problem of survival in the world of today. The authors conclude that the traditional civil-military relationship has lost its meaning and the executive synthesis is not effective as it is made under modern conditions.

Part II of this volume, written by Walter Millis, deals with the events and problems following on from WWII. Millis expands on the idea that the old organizational ideas and concepts, particularly that of "civilian control," were wearing thin. He says that fear of a military dictator in this country had receded, but that fear of militarism lived on. He proceeds to demonstrate that modern conditions create a commingling in which the civil and military sides of the house tend to lose their traditional characteristics. The views on the transmutation of the service chiefs into quasi-political creatures are disturbing, whether or not one accepts their validity and inevitability.

The pace of the book accelerates in Part II — a necessity in a project as ambitious as this one. We get a breakneck (but by no means superficial) gallop through the various steps of reorganization, the Cold War, the China problem, the Truman-MacArthur controversy and the New Look. The MacArthur section is particularly pointed. Millis believes that this was a unique situation, stemming from political and personal factors not likely to recur, and any principles derived from it or changes based on it are likely to be invalid. He then proceeds to present MacArthur as a willful and insubordinate commander who furthered his own causes, advanced his own ideas, and protected his own ego at whatever cost to others.

As a matter of fact it is fair to say that Mr. Millis is able to restrain an excess of enthusiasm for almost everyone and everything. He displays little warmth for Eisenhower, either as soldier or politician. Truman is certainly not his idol, and the parade of soldiers, sailors and airmen passed in review (with the single exception of Marshall) do not escape. If contempt *for* Congress were punishable, Mr. Millis would certainly have to prove his innocence in court.

Up to this point it is possible to understand, although not necessarily to accept, most of what the authors have to say. In a single volume they have made an admirable achievement toward an impossible

task. Omissions come to mind, but it is not easy to select matter which should be deleted to permit their inclusion. There is, however, one disquieting element. The book ends thus, concerning a "New Locus of Power":

"What remains is the conclusion that the late-eighteenth-century disputes over the proper locus of the civilian and the military power in the state have largely lost their force. The modern democratic state is more or less inescapably a monolithic structure. It is devoted, as the Constitution declares, to the twin objects of providing for the common defense and promoting the general welfare. In the long international isolation of the nineteenth century it was possible to separate the two and largely to forget the common defense in the pursuit of the general welfare. It is possible no longer; today the common defense has taken on an immediacy and urgency which it had not possessed since the early days of the Republic. If the institutions involving, or expressing, the military and the nonmilitary factors in the national life are to be brought into a proper relationship, it will have to be done in terms other than those which seemed appropriate to the past."

This is vague. What would our authors have us do? The separation of powers in this country goes much deeper than an expression of fear over military dictatorship. There is ample testimony (for example, in *The Federalist*) leading to the conclusion that this position is part of all aspects of national life. The power was carefully divided so that elected representatives would always be subject to the pressures and disciplines of their peers and neighbors. Does "monolithic" imply that some major organizational change, concentrating power of decision and action in a smaller hierarchy, is recommended? If this is the case, it has not been proved. If any such action is proposed as the logical solution to our current problems, (and such ideas have many learned advocates) then its supporters should spell out, in careful detail, just what primary changes in the basic national fabric are involved. To the extent that they are vague, such proposals do more to disturb than to enlighten. The growing trend toward "institutionalization" of operations and control at the highest level is not, one dares hope, either an irreversible process or an ideal solution. Chapter XIV of First Corinthians would still seem to hold some hope.

Reviewed by Col Angus M. Fraser

Ed: After a tour of duty at HQMC, this reviewer is now attending the National War College.

THE CONFEDERATE READER

Edited by RICHARD B. HARWELL. 374 pages, illustrated, index; Longmans, Green & Co., Inc., NY. $7.50

This is the story of the War Between the States as the citizens and friends of the Confederacy saw it and wrote about it. Admittedly it is sometimes prejudiced and in some instances incomplete; but this is not a history of the "Lost Cause"—it is a compilation of selected contemporary writings and sketches.

The articles are arranged chronologically and introduced with sufficient political, military and social background to lead the reader into each of the writings. The picture of life in the South presented by these samples is quite accurate for it was written by its citizens as they lived it. The sources from which the excerpts were taken range through general orders, letters, sketches, sermons, songs and novels.

Starting with the "Ordinance of Secession" in December 1860, which separated South Carolina from the Union, and ending with Gen Kirby-Smith's message—in late April 1865, wherein he encouraged his troops to continue fighting in the West — the articles present the life and sentiments of all geographical areas of the South.

The reasons for secession, aspirations of the Confederacy, and the romanticism and sentimentality of the period run throughout the articles.

Richard B. Harwell is Executive Secretary of the Association of College and Research Libraries, and former Director of Publications, Virginia State Library.

Reviewed by LtCol G. S. Saussy

Ed: The reviewer is assigned to the Mechanized Instruction Group, Supporting Arms Section, MCEC, MCS, Quantico, Va.

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THE INFLUENCE OF SEAPOWER UPON HISTORY, 1660-1783

A. T. MAHAN. 495 pages, diagrams. Sagamore Press Inc., N.Y. $1.95

Few books have been more talked about and less read than Alfred Thayer Mahan's *The Influence of Seapower Upon History.*

Now, this great book which must rate high in any list of the most important writings in history is available through this paper-back publication by the Sagamore Press.

Indeed, few books have ever exerted such an influence upon contemporary and subsequent thought as has Mahan's *The Influence of Seapower Upon History.* Nowhere did Mahan's thoughts have more impact than in the US. This was due probably to a combination of the basic factors generally coinciding with its publication—the rising influence of Theodore Roosevelt and the emergence of the US as a great world power. Japan saw so clearly the fundamental strategic truth that seapower was and must continue to be the indispensable attribute of any nation which sought to achieve influence in the world community of nations.

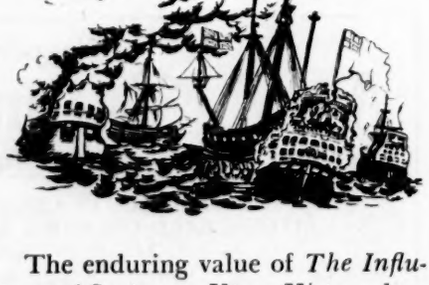
In essence, *The Influence of Seapower Upon History* is a brilliant and forceful exposition of the geographical, physical, economic and political factors that combine to serve as the foundation upon which seapower is erected. The book is also a penetrating naval history of the rise of the British Empire during the crucial era in which it overcame the challenge of Holland, France and Spain through the application of fundamental principles of naval strategy. Mahan possesses the all-too-rare ability of being able to write accurate history and also to derive from it practical lessons applicable to the contemporary and future situations.

Mahan, probably more than any other individual, was responsible for pushing out the horizons of our national strategic thinking, extending our strategic thought beyond the then geographic insularity to a new and widened scope that was in every sense global.

With the original publication of his writing, Mahan achieved recognition and fame not only in the US but also in Europe and the Orient. Young Kaiser Wilhelm II, who was coming to the conclusion that attaining the German Empire's "place in the sun" would be furthered by a great German Navy, "devoured" Mahan's writings. It is said that the Kaiser personally directed that a copy of Mahan's book be placed in the wardroom of every one of his ships.

In England, Mahan was recognized as the foremost student of seapower. In fact, it was observed there, that it was somewhat paradoxical that England, which created an Empire through seapower and whose survival depended upon seapower, had to turn to an American for the fundamental lessons and philosophy on that subject.

Japan, too, that island nation then in the process of breaking out of her self-imposed centuries of isolation and already taking the initial steps on the road to overseas empire, was influenced by Mahan.



The enduring value of *The Influence of Seapower Upon History* does not derive from tactical or operational dissertations. Rather its lasting quality stems from the fact that Mahan wrote of immutable principles. In fact, Mahan was a man intellectually ahead of his time. He was writing geopolitics before MacKinder expounded his "Heartland" theory and long before Haushofer warped those geopolitical thoughts to the mold of Nazi ideology.

Mahan's thesis that the rise and fall of seapower, and of nations themselves, has always been linked with commercial and military command of the sea is of particular pertinence in terms of today's East-West conflict. The parallel decline of British seapower and the loosening of the bonds of Empire are more readily perceived and their implication more clearly understood in terms of Mahan's thinking. Likewise, the Free World's orientation toward the sea and dependence upon the sea lanes for strength in peace and survival in war is in complete harmony with Mahan's basic thoughts.

The rise of Soviet seapower and the new Russian emphasis upon world commerce as an instrument of Red aggression heavily underlines the present day application of Mahan's recognition of the relationship between naval power and world trade. It is as true today as when Mahan penned his thesis over half a century ago that no nation can aspire to the status of being a great world commercial power without providing the seapower base upon which such overseas commerce is, in final analysis, sustained and conducted.

Mahan's *The Influence of Seapower Upon History* deserves a place in the personal library of every civilian and military reader. This new edition, at the retail price of $1.95, makes this great and wise book available to all those who want to possess it.

Reviewed by BGen J. D. Hittle, USMC(Ret)

Ed: The reviewer is Legislative Assistant to the Commandant of the Marine Corps.

IN EVERY WAR BUT ONE

EUGENE KINKEAD. 219 pages. W. W. Norton & Co., N. Y. $3.75

"My name is ——— ———. I've been in the army seven months, and I'm glad that I'm one of the liberated GIs because I've learned how my government has tricked me and my friends and family. . . . Capitalism is no good. We want a government like the Soviet Union and China, don't we, fellows?"

These words, penned by a "Wised-up GI," were published in a POW camp newspaper in Korea. Printed and distributed to other prisoners who were already weakened and demoralized, these statements could hardly be considered the utmost in American resistance to Communist "brainwashing" techniques. One hardly feels like going into mourning upon reading that the "Wised-up GI" died, less than a year after his literary debut, of malnutrition. But there is more to this case than simple disloyalty to country. What made this man come to his conclusions about his government and that

of China? Why did thousands ot American POWs collaborate, in some way, with their Communist captors?

The search for the answers to these questions and the fact that 38 per cent of the Americans captured in Korea died in prison camps, launched the US Army on a program of exhaustive research into the behavior of American POWs. The study went on for 5 years, and in this vast storehouse of information, ranging from the despicable to the heroic, author Kinkead has found his story.

There's the case of Sgt James C. Gallagher, who displayed more brutality than his Communist masters, when he bodily heaved 2 sick and seriously wounded fellow Americans out of their prison hut into the snow. Weakened by diarrhea and loss of blood, the 2 men froze to death. Gallagher's reason: the men stank. No effort was made to clean them up and nurse them back to health. No person offered resistance to Gallagher or his actions. No spirit of cooperation existed. The primary thought in the minds of the occupants of that hut was, "What can be done for ME?" There was no such thought as, "What can I do to help?"

This was the extreme. But the study revealed thousands of instances of selfishness and this book pulls no punches in relating them and their causes. The things a man would do for an extra cigarette or a bit of candy were all out of proportion to the reward received.

The other side of the picture is painted as well. There was the chaplain who remained behind to be captured with a group of wounded men so he could attend to them in their captivity. In the next few months he literally worked himself to death trying to provide leadership and moral strength to all his fellow prisoners. But this type of man was all too scarce.

The book is not chronological but it is certainly analytical. "Brainwashing" is exposed for what it truly is — not a thing involving the use of "truth drugs" or other scientific media — but simply political indoctrination administered when moral resistance is at its lowest ebb. All the tricks are described. There's the withholding of cheerful mail from home, and the immediate delivery of those letters that nag and complain. Prisoners are exposed and humiliated before their fellows for being unclean, late for a formation, or ignorant of minor items in their country's history. Torture is threatened but never carried out. From sheer boredom a man reads an available book on Marxism. He is immediately pointed out by the Communists to his fellow prisoners as a man who is "beginning to think our way!" The others begin to suspect the reader and he is shunned or even given the "silent treatment." In his loneliness he turns to the other "progressive" prisoners or even to the "sympathetic" camp officials. He is well received for he is losing his will to resist.

But the means with which to retain that will were available in the beginning and Kinkead relates the determination of those who retained the means and found their strength through unified effort. The records of the Marines and the Turks stand out in this respect. They fell back on discipline. There was esprit-de-corps to cause them to nurse their sick and bolster their weak at heart. There was always a leader to organize them.

When Operation Big Switch took place, the returning POWs were asked the name of their organization. Some remembered to say proudly, "E Company, 2d Battalion, — Infantry, Sir." But too many listlessly replied, "Hut —, Prison Camp Number 5."

The book tells why this happened and drives home the point that discipline in the home and in training could have prevented the situation in this war as well as those in the past. Valuable source material for instructors in the Code of Conduct, the book is good reading for every man in uniform.

Reviewed by Maj L. N. Utter
Ed: Assigned to the G-3 Division, HQMC, one of the reviewer's areas of duty concerns Code of Conduct training.

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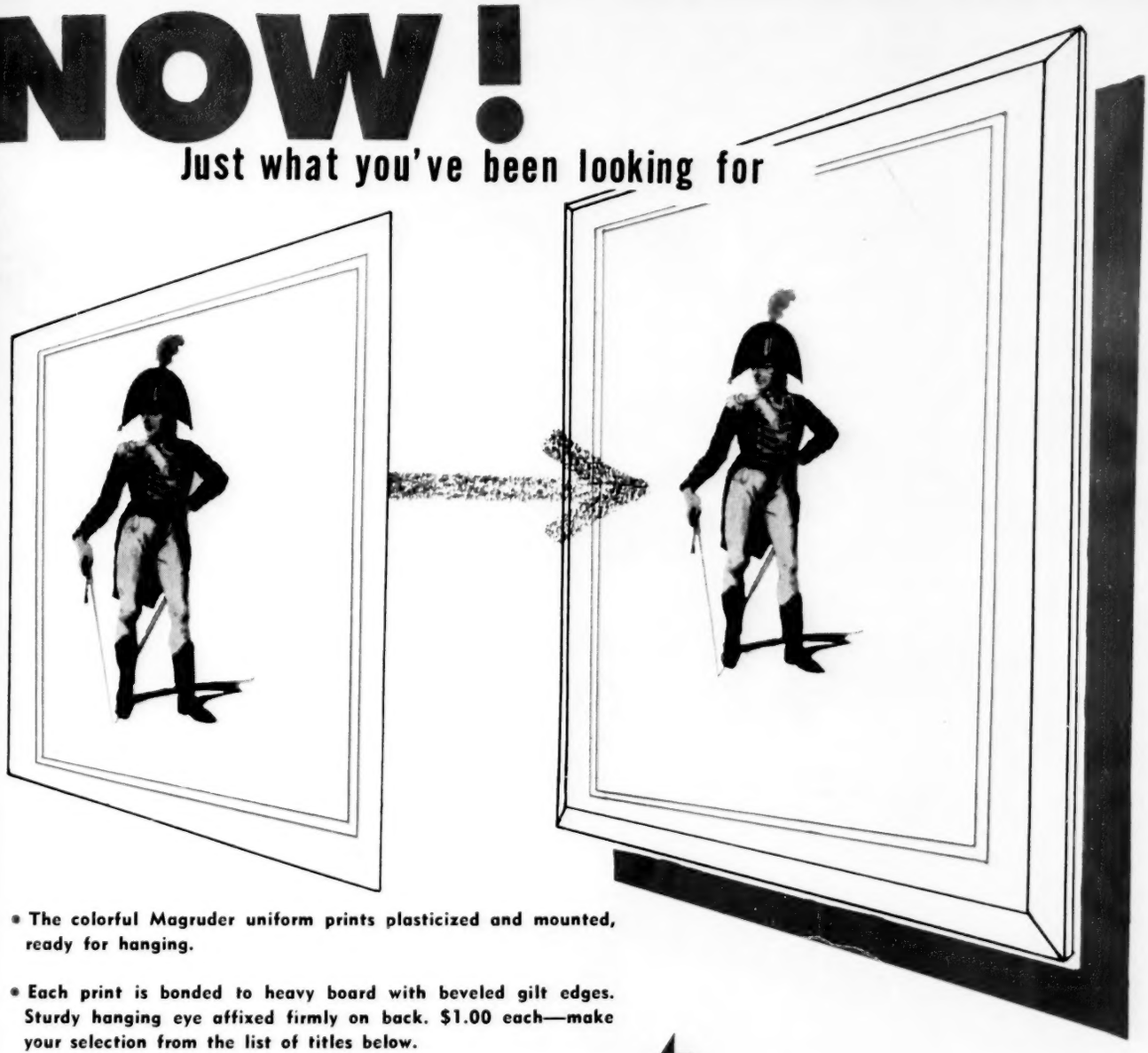

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